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THE STUDY OF
APARTMENT DISTRIBUTION AND APARTMENT DENSITIES
IN THE
METROPOLITAN TORONTO PLANNING AREA

DRAFT

Metropolitan Toronto Planning Board

1st Edition. October, 1966
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THE STUDY OF APARTMENT DISTRIBUTION AND APARTMENT DENSITIES IN THE METROPOLITAN PLANNING AREA

CHAPTER 1

INTRODUCTION

A. STUDY BACKGROUND

The proposed Metropolitan Official Plan contains policy statements which recognize the need to provide for a variety of housing types and residential densities throughout the planning area. These policies are reflected in the population distribution and density map contained in the Official Plan which allows for redevelopment to higher densities in the older parts of the urban area, and permits as well a substantial proportion of apartments and multi-family housing units to be built in developing suburban areas. The Metropolitan and local Official Plans do not set housing goals, and consequently the population figures are derived from anticipated trends in housing composition. It is obvious that projections of this nature for the next 20 to 25 years will require periodic review and revision.

In the Metropolitan Official Plan, the planning districts to which the population projections apply are very large, and since the land use map does not indicate variations in density within the broad residential designations, there is a considerable degree of flexibility inherent in the determination of population and density distribution within a planning district left to the discretion of local municipalities. Progress towards the finalization of the density distribution through the preparation of district plans has been slow in most parts of the Planning Area. In addition, the high demand for apartment development has brought considerable pressure to bear on the planning agencies in the Metropolitan Planning Area, as evidenced by the amount of zoning and particularly rezoning for apartments being processed by them and the Ontario Municipal Board in recent years.

The Metropolitan Planning Board has been involved in this increased activity in local rezoning through the certification procedure required by the Ontario Municipal Board and through its examination of such proposals in relation to the population objectives of the Official Plan. This involvement inevitably raised questions as to the possible effects of rezoning activity and changing density policies on the Official Plan population forecasts, and the need for a comprehensive assessment of the trends in apartment development and density control techniques throughout the planning area.

As the culmination to a series of staff reports dealing with rezoning applications which involved a substantial increase in the previously accepted density levels, the Metropolitan Planning Board, in September 1964, authorized the staff "to undertake a general study of apartment development and density control in the Metropolitan Area, as a guide to this Board, the local municipalities, and the appropriate Provincial agencies, in dealing with future development applications and area plans". In November 1964, the Board adopted an interim density policy, pending further recommendations arising from the general study.

The Interim Density Policy, which aimed at the immediate stabilization of the trend to continuously increasing apartment densities and the removal of competition among local municipalities for apartment assessment, concerned itself only with net density of apartment development. It defined broad limits of various densities across the Metropolitan Area, and accepted other standards and bonusing policies of the local municipalities. It did not involve any distribution and location criteria, and therefore it required an examination of every apartment project, without reference to the overall picture of apartment distribution in the Metropolitan Area.

The operation of the Interim Density Policy, even though so limited in scope, called for the Metropolitan Planning Board to become more directly involved in the matters of population distribution within the Planning Districts, which matter was previously considered to be solely a question of local planning jurisdiction. The report goes considerably further into the matter of density control and apartment distribution, and its recommendations will involve the Metropolitan Planning Board even more extensively in the decision-making as to the distribution of population and dwelling types in Metropolitan Toronto.

There are several reasons for this more positive involvement:

(a) The population distribution proposed in the Plan has due regard to:

(i) The efficient operation of the transportation system.

(ii) The location of employment opportunities.

(iii) The relative importance of the central area and other centres throughout the area.

(iv) The capability of the existing urban structure to accommodate additional population through redevelopment so taking full advantage of existing facilities and amenities.

(b) The proposed population distribution in the Plan may not be achieved if:

(i) Local municipalities in their planning are not made aware of the relative share of overall apartment growth which they can expect.

(ii) Individual municipalities provide incentive for apartment development through increased density provisions so as to attract excessive development in areas not otherwise appropriate for such development.

(c) Excessive rezoning for apartments on vacant land may result in population targets not being achieved within a reasonable period of time with a resultant waste of services and facilities which have involved capital expenditures.

(d) Excessive rezoning for apartments involving redevelopment may result in unnecessary disruption of stable low density residential areas with attendant blight and instability.

It is apparent from the foregoing that this study is undertaken on the assumption that the Metropolitan Planning Board must

(a) Provide a clearer picture of the trend in apartment construction within the total housing and population forecast.

(b) Identify the role of apartments as a factor likely to exert an increasingly dominant influence on the structure of the urban area, and define the pattern of future apartment concentrations with particular reference to the provision of major facilities involving public expenditures.

(c) Clarify any aspects of municipal policy, particularly density standards, which are likely to influence the comparative rate or distribution of apartments throughout the area.

B. TRENDS IN URBAN DEVELOPMENT

In recent years, apartments have probably outstripped any other major type of urban development as an attractive capital investment. They have been built in greater numbers, at greater heights, and in locations which previously did not experience this type of development. Consequently, new pressures and problems in community development have been created. The developer, trying to meet the great demand for his product, has encountered frustrating zoning and other administrative delays, and has had to assume an increasingly greater share of the municipal responsibility for providing the public services and facilities required by his developments which the municipality at large cannot readily supply. The architect has been required to reconcile his principles of design and environment with the requirements of a heavily burdened client and in a competitive atmosphere which is frequently incompatible with these principles. The sociologist has had occasion to become increasingly concerned with social behaviour and mental health in the urban society he sees being developed.

Municipal councils have been asked to consider development problems upon which their advisors frequently do not agree. Individual householders have become apprehensive of their personal privacy and property values through the disagreement of "experts", questionable value judgment, and impetuous or biassed reports made by supposedly knowledgeable or influential organizations and interests. Town planners concerned with the problem of reconciling community resources with both popular demand and public opinion, are given deficient legislation to deal with the ever changing forms of urban development.

In the final analysis, no one has been able to make an authoritative estimate of the effects of environment and density upon people. It is virtually impossible to identify all the factors which affect property values. And most studies of the benefits of apartments to the economic base of a municipality seem to be less than complete and often subject to bias.

The main issue with which this study is concerned is not to provide yet another opinion on the relative merits of apartment development, but to determine how a high level of apartment demand which shows little sign of declining might be satisfactorily integrated into the community as a whole.

The growth of apartments is a single aspect of a general trend embracing several economic and social forces which combine to effect great changes in the development of our urban areas.

1. Urbanization

The trend to increased urbanization, i.e. the concentration of population in a few metropolitan areas, dominates industrial society.

In Canada, the percentage of 'urban' population increased between 1941 - 1961 from 51 to 71%. In Ontario, it increased from 60 to 80%. In the same period, the population in Canadian census metropolitan areas increased from 35 to 45%.

From 1941-1951, metropolitan areas accounted for 51% of the total population increase in Canada. From 1951-1961, this share rose to 60%, with two areas (Toronto and Montreal) accounting for one-half of the total metropolitan growth.

The average rate of population increase for all metropolitan areas from 1951-1961 was 41%, with 16% occurring in central cities and 97% in suburban areas. Similarly, Metropolitan Toronto's population grew by 45%, with the City of Toronto showing a slight decline and the suburbs growing at a rate of 114% in that decade.

The continuation of these trends is expected to result in over 80% of Canada's population being located in urban areas by 1980. The already large metropolitan areas will more than double in population size, including a large percentage in the suburbs.

2. Metropolitan Development

Within the Metropolitan Area, there is a continuing pressure for accommodation and new services. The high level of demand increases servicing requirements, and limitations of urban sprawl through municipal policies have produced increases in land values, which, combined with increases in taxes and other costs suggests the need for more efficient use of private land and reconsideration of the methods by which municipal government influences the use of its available resources.

Metropolitan growth raises many issues of government policy and control: responsibility for initiating development policy; involvement in the development of land which increases (or decreases) in value by virtue of public works; and the efficacy of the existing taxation system in promoting the most desirable use of land.

Under present conditions, municipal government is concerned with building up taxable assessment to offset the increasing costs

of providing required services. The current apartment boom plays a very prominent part in these considerations, particularly with respect to its effect on educational facilities and its general "profitability" from the municipal point of view. In the older parts of the area, the municipalities are becoming increasingly aware of the need for rehabilitation or redevelopment to restore and maintain a viable social and economic environment. Their present taxation policies, however, do not encourage rehabilitation by individual private action. Similarly, while private redevelopment has been extensive, it has tended to ignore the areas of extensive deterioration, and little positive public encouragement has been given to divert private renewal resources into such areas. For example, new development may be needed to pay for the replacement of obsolete services, but the new services are really needed before the redevelopment can be expected to take place. There is no ready solution to the dilemma. If new assessment becomes the only criterion and justification for redevelopment, municipal control over development required by the municipality's other obligations is totally abdicated. If too severe limits are placed on private development, the growth rate may be so seriously impeded that a municipality will not be able to achieve a satisfactory economic base. Special inducements in the form of lower development standards or unduly high densities to encourage development in one municipality instead of another do not solve this problem.

There are several other demographic and social factors favouring continued apartment growth: an increasing proportion of total adult population in age-groups 20-30 and over 65 years, combined with a higher degree of economic independence in these age-groups; a slow-down in family growth to which the increased ratio of married women in the work-force contributes; continued immigration associated with the use of rental accommodation in the initial years of residence; and the increased mobility of the labour force whose attitudes to the ownership of living accommodation are changing accordingly, as well as the increased rate of "undoubling" of families due to the increasing standards of living.

Because there is very little single-family housing available for rent, the demand for it is high.

Several factors, such as increasing house prices and taxes, and changes in spending preferences for items other than housing,

combine to suggest that a smaller percentage of total householders are able, or willing, to assume home ownership. Although apartment living is not cheap, there can be savings in direct costs: initial outlays or downpayments, maintenance costs, and maintenance chores.

This has resulted in an upsurge in apartment building to facilitate the demand. While the National Housing Act's provisions for rental housing produced little activity prior to 1958 subsequent increases of the amount of N.H.A. guaranteed mortgage financing available for apartment development at much higher per unit ratio provided a considerable incentive to the building industry. Subsequent endeavors of private developers, and particularly the less attractive projects in the field of limited dividend apartments after 1958, focused attention on the need for a new approach and better building techniques for apartments. The industry is now increasingly dominated by large building corporations, employing extensive amounts of capital in much larger apartment projects than they previously considered feasible.

These trends are identified with, or explain, the rapid growth of apartments throughout North America whose housing industry was for so long dominated by single-family dwellings. In the United States, "multi-family" dwelling units (which definition usually includes maisonettes and garden-court apartments as well as other apartments) comprised 20% of new units constructed in 1959, 40% in 1965, with ratios up to 60% in some areas, including suburbs. In Canada's metropolitan areas, 71% of the new units constructed in 1961 were multi-family, compared with 35% in 1955.

In summary, the apartment boom might reasonably be identified with a growing proportion of the types of households traditionally associated with apartment living, and growing pressure on the land resources of metropolitan areas leading to redevelopment in central areas and increased densities in suburban areas.

In addition to these basic influences, other economic and social factors combine to favour apartment growth at the expense of other types of housing to the extent that, while the total demand for accommodation is being met, there is actually a shortage of housing. Provided that the apartment accommodation is sound, uncrowded and in a decent environment, any element of "enforced"

apartment living may be regarded as the inevitable reflection of the population's increased urbanity and changing needs. There are other aspects to this situation, however, which have already evoked concern: the gradual disappearance of sound owner-occupied single-family housing, which becomes "obsolete" because present owners feel the pressures of taxation and a speculative market, and because the general lack of mortgages for older homes appears to limit effective demand from persons who could use the property; and, in direct contrast, the continued neglect of substandard (rental) housing because its rental value is over-emphasized by a housing shortage for those households least able to afford the cost of the new apartments being provided.

C. HISTORICAL ANALYSIS OF APARTMENT DEVELOPMENT TRENDS

Toronto prides itself on being a city of home-owners, and home-ownership is indeed more widespread than in Montreal, the only other Canadian metropolitan area of comparable size. It is widely believed that prior to the recent apartment building boom practically all households in this area lived, or wanted to live, in detached single-family dwellings. This attitude is characteristically expressed in the following statement which, in large print, fills the first page of a planning report published in 1945 by the Toronto City Planning Board:

> "This preface was inserted to stress the need for precautionary measures which guard against the possibility that the central portions of the City will be built up with apartments to the detriment of the single-family house. The family is the cell of Canada's national life, therefore, the single-family residence should be given priority over all other types of housing accommodation."

Subsequent facts do not confirm this objective: single-family house occupancy and home ownership have not become entirely identical, nor have apartment occupancy and renter status. In 1961, for instance, in the Toronto Metropolitan Area as defined by the Census of Canada, 10.2% of all single-family dwelling units were rented, and 9.3% of all multi-family dwelling units were owner-occupied. In 1951, the percentage of owner-occupied multi-family dwellings was as high as 18.2%, almost one out of five.

In terms of the increasing number of apartment units in the total housing stock, it is not just the dominance of the single-family house (detached, semi-detached and attached) which is being affected, but also other forms of multi-family dwellings which have been widespread in this area for a long time, in the following ways:

(a) Formerly single-family houses have been converted to multi-family use. As the supply of large old houses suitable for such conversion becomes exhausted, and as many previously converted are demolished or re-converted to non-residential uses, their number decreases relatively and possibly even absolutely.

(b) Fewer units are being built in non-residential buildings, e.g. apartments over stores. The number of such units is decreasing absolutely as well as relatively. In England's "new towns" and in redevelopment areas such as Lansbury in London, some quite satisfactory units of this type have been built; but they appear not to be generally popular in the Toronto metropolitan area.

(c) Few two-three storey apartment structures are now being built, and some are being demolished.

(d) Small apartment structures containing two to six units continue to be built, but at a decreasing rate.

(Duplexes are sometimes not considered to be "multi-family" buildings. "Maisonettes" and row houses built for rent are difficult to classify and sometimes are regarded as attached single-family houses, sometimes as horizontal apartment houses. Because definitions of building type vary, the figures presented in this chapter may not be strictly comparable. They should not in any case be interpreted literally but merely as indicating the relative magnitude of each type.)

In the decade prior to the First World War, the number of single-family dwellings in the City of Toronto more than doubled. In the following decade, less than half as many houses were added. After 1925, the number increased only nominally to its peak of 110,356 in 1936. It has since remained relatively stable as shown in Table 1.

TABLE 1

SINGLE-FAMILY DWELLINGS IN THE CITY OF TORONTO

Year	Total Number	Change during preceding period	
		Number	Percent
1905	41,558		
1915	84,993	43,435	104.5
1925	104,741	19,748	23.2
1935	110,273	5,532	5.2
1941	109,556	-717	-0.7

In 1927 all forms of multi-family housing accounted for about one-fifth of the total housing stock in the City of Toronto. As shown in Table 2, they more than doubled in number during the following 14 years.

TABLE 2

MULTI-FAMILY DWELLINGS IN THE CITY OF TORONTO

Year	Number	Increase during preceding period		Percent of all D.U. in City of Toronto
		Number	Percent	
1927	20,824			16.0
1934	32,295	11,471	55.2	22.7
1941	43,611	11,316	35.1	28.5

The demand for multi-family housing, however, has continued to increase. In 1944, the City's first Planning Director, Mr. Tracy D. LeMay, noted in his annual report that "10 years after initial occupancy, conversion to multiple use and building of duplexes and apartments on vacant lots starts". A year earlier he had urged closer consideration of this trend, stating "multiple units must be permitted". (In 1947, Humphrey Carver was able to draw attention to the fact that "60% of the housing within the City is in the form of buildings containing more than one dwelling unit".*)

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* Humphrey Carver, Housing for Toronto 1947. Toronto Metropolitan Housing Research Project, 1947, Page 16.

As is evident from the 1945 "Preface" quoted above, the City Planning Board did not agree with its Director. Public opinion and official policy on all levels of government during the war and post-war years were completely dominated by ideals of home-ownership and the pre-eminence of the single-family dwelling. During the war, home-ownership in the City of Toronto increased from 41.3% to 47.1%. In "Greater Toronto" (an area including the urban sections of Etobicoke and Scarborough, and all of the other 11 municipalities now constituting Metropolitan Toronto), home ownership rose from 45% in1945 to 55% in 1955. The number of owner families increased during that decade by 47,000 or 44%, while the number of tenant families remained constant in 1945 and 1946 when no less than 89.7% of new residential construction was in single-family houses. Of the balance conversions accounted for more than twice as many units (543 or 6.9%) than new multiples (269 or 3.4%). Of this latter insignificant number, almost two-thirds (170) were units in business premises, and 37 were duplexes and triplexes. No more than 62 were "apartments and flats".

A change occurred in the 1950's. The average annual rate of completion of multi-family dwelling units increased from 1,740, or 18.3% of the total in Metropolitan Toronto to 9,615, or 43.2% in 1955. The number of completions during the following two years was lower, but in 1957 for the first time, the number of multiples completed exceeded the number of single-family units completed, accounting for 54.2% of all dwelling completions. During the following five years, 1958-1962, multiples increased their lead accounting for 64% of all completions. From 1962 to 1963, however, a reversal took place. The average annual rate of completion of multiples dropped from 11,516 to 7,205, or from 61.5% to 47.8% of all completions. A similar pattern continued during the following two years. During the 3-year period 1963-1965, as well as for the entire 16-year period 1950-1965, completions were virtually evenly divided between single and multiple units.

TABLE 3

DWELLING COMPLETIONS, METROPOLITAN TORONTO, 1950-1965

Years	Single-family	Multiple	Total	Multiples as % of Total
1950-53	29,495	11,515	41,010	
Annually	7,374	2,879	10,253	27.9
1954-57	39,799	31,445	71,244	
Annually	9,950	7,861	17,811	44.3
1958-62	31,563	56,274	87,837	
Annually	6,313	11,255	17,568	64.0
1963-65	25,617	26,279	51,896	
Annually	8,539	8,759	17,298	50.8
1950-65	126,474	125,513	251,987	49.8

Excepting the abnormally high average annual proportion of multi-family units completed during the period 1958-1962 (which may be rationalized as a deficient supply trying to catch up to neglected demand) which has slackened off in more recent years, it is apparent that multi-family completions are gradually increasing as a proportion of the total number of dwelling units completed each year. This fact, together with the gradual depletion of the existing stock of single-family housing in the central area by redevelopment to apartments, may lead to an assumption that the proportion of multi-family dwellings in the total housing stock will continue to increase each year. Such an assumption, however, does not take into account the changing nature of the demand for new types of rental housing more closely resembling home ownership units, or at least satisfying "family" requirements. These changes have resulted in the emergence of units of a type intermediate between the apartment and the single-family house ("maisonettes" and row or "town" houses) and the spread of apartment building construction to the fringe of the Metropolitan Planning Area. From a modest beginning of 239 units, or 1.3% of all completions in 1962 row houses increased to an annual average 1,000 units or 5.7% of all completions in 1963-1965. On the fringe, a substantial number of multiples appeared for the first time in 1962, joined in 1963 by a small number of row houses. During the period 1962-1966, these two types of units accounted for an average of 588 units annually, or 22% of all completions in the fringe municipalities.

CHAPTER 2

SURVEY OF EXISTING APARTMENT STOCK

A. NUMBER OF APARTMENTS

In April 1965,* there were 128,382 apartment units** in Metropolitan Toronto. It is estimated that these apartments represented 26% of all dwelling units in Metropolitan Toronto, compared to 20% in 1961 and 10% in 1951. An additional 3,144 apartment units were surveyed in the fringe municipalities but there are no earlier counts to enable these to be evaluated on the same basis as the metropolitan totals.

The number of apartment units is still increasing at a greater rate than the population, and reached a ratio of 70 units per 1,000 population in 1965, compared to 51 per 1,000 in 1961, and 39 per 1,000 in 1958. Despite an ever-expanding rate of annual construction since 1959, the vacancy rate in apartments, which was found to have risen to 6.1% in 1961, fell steadily to 2.6% in 1964, 1.5% in 1965 and 1.0% in 1966.***

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* A basic survey and inventory of apartments was undertaken by the Board in 1959 and rechecked in 1961. New apartments have been added (and demolitions deducted) on the basis of a survey of aerial photographs in the spring of each succeeding year, followed by field checks of buildings actually occupied. The annual totals therefore apply to an approximate date of April 1 in the year stated. The apartment totals quoted here for 1961 are greater than those quoted in the 1961 Metropolitan Apartment Survey due to the inclusion of public and limited-dividend apartments.

** An apartment (unit) is a self-contained dwelling unit in a building containing six or more dwelling units which are arranged both side-by-side and one-above-another, and which share common means of access to the building at street level. The distinction from other types of multi-family housing is based on differences of land use and occupancy characteristics; and in contrast, row (terrace or town) houses and maisonettes are arranged only one unit high, and have at least one private means of access to each unit.

*** C.M.H.C. Annual Vacancy Survey.

More than two-fifths (41%) of the 1965 apartment stock was built in the preceding six-year period since 1959, at an average rate of 8,845 units per year, or about 55% of the average annual number of all dwelling units erected from 1959 to 1965.

B. GENERAL DISTRIBUTION OF APARTMENTS

The general distribution of apartments is shown in Plate 1*. In terms of the division of Metropolitan Toronto into City-Inner Suburbs-Outer Suburbs,** there have been significant changes in the general distribution of apartments during the period 1959-1965. Of the new apartments built, 54% or an average 4,850 units per year, have been located in the three Outer Suburbs, about 22% or 1,900 units per year in the Inner Suburbs, and 2,100 or 24% per year in the City of Toronto. In this period, the Outer Suburban share of apartments increased from 28% to 39% of the Metropolitan total, the Inner Suburb's share declined slightly from 26% to 25%, while the City of Toronto's share declined from 44% to 36%.

The comparative growth rates in apartment stock (1959-1965) were 136% for the Outer Suburbs, 56% for the Inner Suburbs, and 37% for the City.

Plate 2 shows the relative proportion of apartments in the total housing stock in 1965. In the City and Inner Suburbs the apartments built between 1959 and 1965 represented over 90% of all dwelling units erected in those areas, while the ratio in the Outer Suburbs was 40%. In 1965, it is estimated that apartments constituted about 26% of all dwelling units in the City, 33% in the Inner Suburbs, and 23% in the Outer Suburbs.

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* It should be noted that this map shows some sites developed since the last detailed count of apartment units for April 1965.

** City - City of Toronto
Inner Suburbs - York, East York, Forest Hill, Leaside, Mimico, Long Branch, New Toronto, Weston, Swansea

Outer Suburbs - Etobicoke, North York, Scarborough

The recent upsurge of suburban apartment construction is also emphasized in terms of the concentric distance zones discussed in the 1961 Apartment Survey.

While the 2 - 5 mile zone still contains the highest percentage of total apartments (41% of all apartments in major concentrations), the inner urban area as a whole (0-5 mile zones) has declined in relative importance, accounting for 48% compared to 57% in 1961. The 5 - 8 mile (largely suburban) zone has also declined in relative importance from 43% to 37%, but this has been offset by gains in the 8+ mile (suburban) zone where the apartment stock has increased from 4% to 15% of all apartments since the 1961 Survey.

The impact of the newer apartments is particularly noticeable in the suburbs due to a trend to increased size of projects and heights of individual buildings. While pre-1960 development was typically 3 - 6 storeys, a high-rise trend has quickly developed through a 6-9 storey stage, with many buildings now reaching 15-18 storeys. Consequently, the central area no longer holds a pre-eminent position in high-rise apartment construction (Plate 3).

C. DISTRIBUTION BY MUNICIPALITY

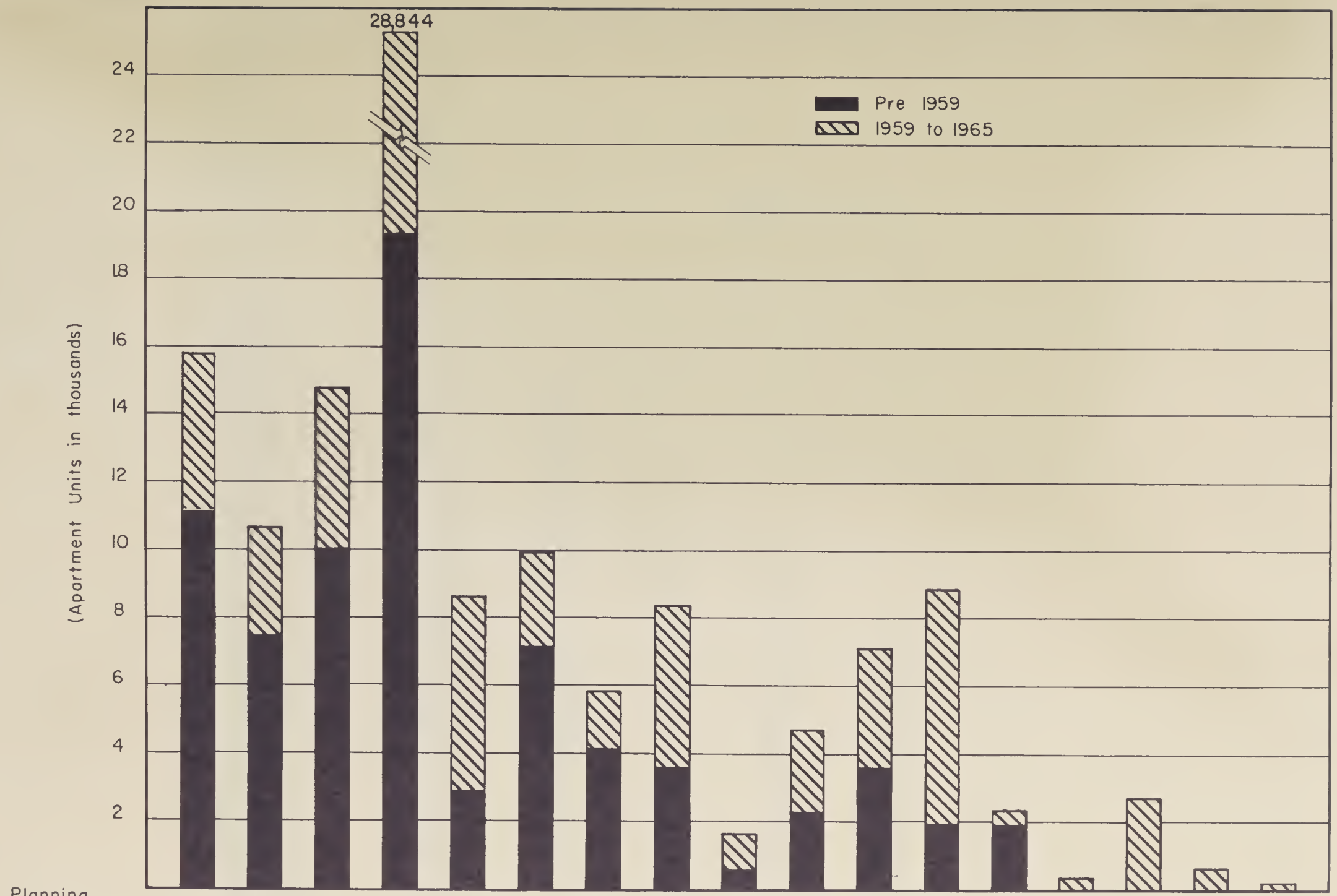
As shown in Table 4 and Figure 1, the City of Toronto still contains the largest number of apartments (46,281), followed by North York (28,904), Scarborough (11,417), Etobicoke (10,110) and York Township (10,025). Only six of the thirteen municipalities maintained the same ranking by total apartments from 1959 to 1965. The most significant changes have been the advance of Scarborough from fifth to third place, Weston from 13th to 11th place, the continued gain in North York's share of total apartments (18.0% to 22.5%), and the decline in the City of Toronto's relative importance, as previously noted. North York has had the largest average annual increase (2,563 units), followed by the City of Toronto (2,093), Scarborough (1,312) and Etobicoke (975).

The apartment stock in Metropolitan Toronto increased by 70% over the six year period, with growth in seven municipalities exceeding this average. Apartments in Scarborough multiplied by 222%; Leaside, Weston, North York and Etobicoke by over 100%. East York (75%) and Long Branch (86%) also top the metropolitan average.

TABLE 4

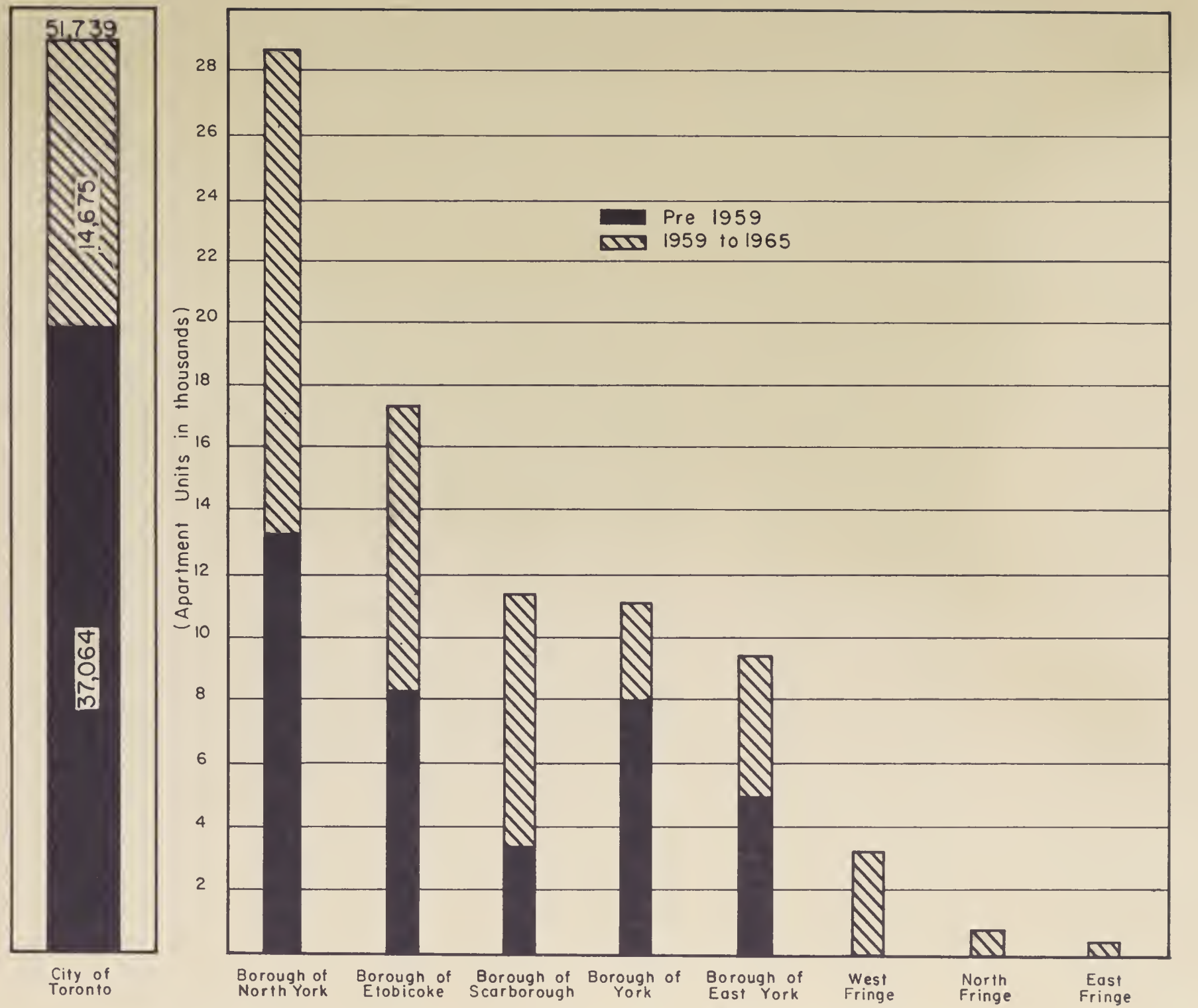
INVENTORY OF APARTMENTS 1959-65 BY MUNICIPALITY

	Number of Apartment Units in Year of Survey					Average annual unit increase 1959-65
	1959	1961	1963	1964	1965	
Toronto	33,724	36,750	39,746	43,337	46,281	2,093
York	7,586	8,322	8,808	9,482	10,025	407
East York	3,392	4,885	5,347	5,685	5,943	425
Forest Hill	2,659	3,155	4,096	4,365	4,461	300
Leaside	1,601	2,123	2,546	2,819	3,499	316
Mimico	2,136	2,951	3,286	3,286	3,286	192
Long Branch	866	878	992	1,151	1,391	87
Weston	424	674	928	1,016	1,077	109
N. Toronto	911	981	991	991	991	13
Swansea	681	857	863	863	997	53
Inner Suburbs	20,256	24,826	27,857	29,658	31,670	1,902
North York	13,527	17,563	23,912	26,655	28,904	2,563
Scarborough	3,545	6,199	9,912	10,735	11,417	1,312
Etobicoke	4,258	5,047	7,509	8,423	10,110	975
Outer Suburbs	21,330	28,809	41,333	45,813	50,431	4,850
Metro Toronto	75,310	90,385	108,936	118,818	128,382	8,845



Note: Districts 12, 16, 17, 19, 21, and 22 had no apartments in its survey year. (April 1965)

Existing Apartment Stock by Planning Districts Figure 1



Existing Apartment Stock by Metropolitan Boroughs and Groups of Fringe Municipalities Figure 2

With apartments increasing in relation to total housing stock in all areas, the highest proportions have been reached in Forest Hill (55%) and Mimico (51%). The largest Inner Suburbs of York and East York have a ratio of about 26%, similar to that of the City of Toronto. In the Outer Suburbs, North York has 29% of its housing stock in apartments, compared to about 17% in Etobicoke and Scarborough.

D. APARTMENT CONCENTRATIONS

The grouping of apartments into recognizable clusters or concentrations as identified in the 1961 Survey has continued. The delineation of these concentrations in this study includes only areas having more than 600 units in 1965 (see Plate 1). The concentrations still contain 75% of all apartments, with many other apartments on sites which will eventually coalesce into additional concentrations in the future.

Seven of the 42 concentrations (only four in 1959) contain more than 3,000 units or 43% of all units in the concentrations. Six of these larger concentrations are in the City of Toronto or adjacent inner urban areas within four miles of the city centre. They were well established apartment areas in 1959 generally with more than 2,000 units, and have continued to grow at a steady rate by redevelopment under the influence of widespread zoning at permissible densities ranging up to 200 units per acre. The Downtown area has shown the largest unit increase in the 6-year period (4,150 units added, including 900 units of public housing), followed by Eglinton-Yonge (2,950 units added, which constituted a 120% increase in six years), Parkdale (2,625 units added), Vaughan-St. Clair-Spadina (1,670 units added) and Bathurst-Eglinton (1,600 units added).

The largest suburban concentration, Victoria Park-Eglinton located 6 - 7 miles from the city centre, has more than doubled its number of units in the past six years from 1,430 units to 3,300 units, with a considerable extension of its linear form along both roads.

Berry Road is the only area of the eight concentrations in the 2,000 - 3,000 unit grouping which had this status in 1959 and did not increase appreciably in size since. Cosburn-Broadview (1,310 units added), Mimico-Lakeshore (900 units), and the

Annex (770 units), have grown steadily; but the most rapid growth has been in four suburban areas which had less than 1,000 units in 1959: Thorncliffe Park (2,260 units added), Keele-Lawrence (2,000 units), Kennedy-Eglinton (1,800 units), and Don Mills (1,500 units).

The number of areas with 1,000-2,000 units has increased from 9 to 15 since 1959. Four of these concentrations in the City of Toronto have remained almost static largely due to changes in City zoning; whereas three entirely new suburban concentrations (8-9 miles from the city centre) have sprung up since 1959. One of these, York Mills-Victoria Park (1,870 units in 1965), is the largest concentration in this grouping.

Similarly, in the smaller concentrations containing 600 - 1,000 units, most of those in the City of Toronto and inner urban areas have been in existence and have remained static since 1959, while five entirely new concentrations appeared in the suburbs. In addition, the first apartment concentrations have appeared in the fringe municipalities at Cooksville and Port Credit.

E. SUMMARY

The total apartment stock in Metropolitan Toronto has increased substantially in the period 1959-1965, and is becoming an increasingly important part of the total housing stock. Apartment buildings have sprung up in almost every part of the urban development area, and, with the trend to high-rise construction, are becoming a dominant element of the suburban landscape.

The central part of the Metropolitan Area (Bathurst to Bayview, north to Eglinton) remains the focus of apartment development, but certain well-defined axes of outward growth are becoming clear:

(a) To the northwest, between Lawrence (Dixon) and Sheppard, particularly along Keele, Jane, Islington and Kipling.

(b) To the north, most notably along Bathurst Street as far as Finch Avenue.

(c) To the northeast along the alignment of the Don Valley Parkway.

(d) To the east, through Central Scarborough along Eglinton and Lawrence Avenues.

Apartment development along the lakeshore is more evident to the west than to the east, due primarily to the Parkdale and Mimico concentrations.

Within the developed area of Metropolitan Toronto there are five quite large residential areas which have not experienced significant amounts of apartment development:

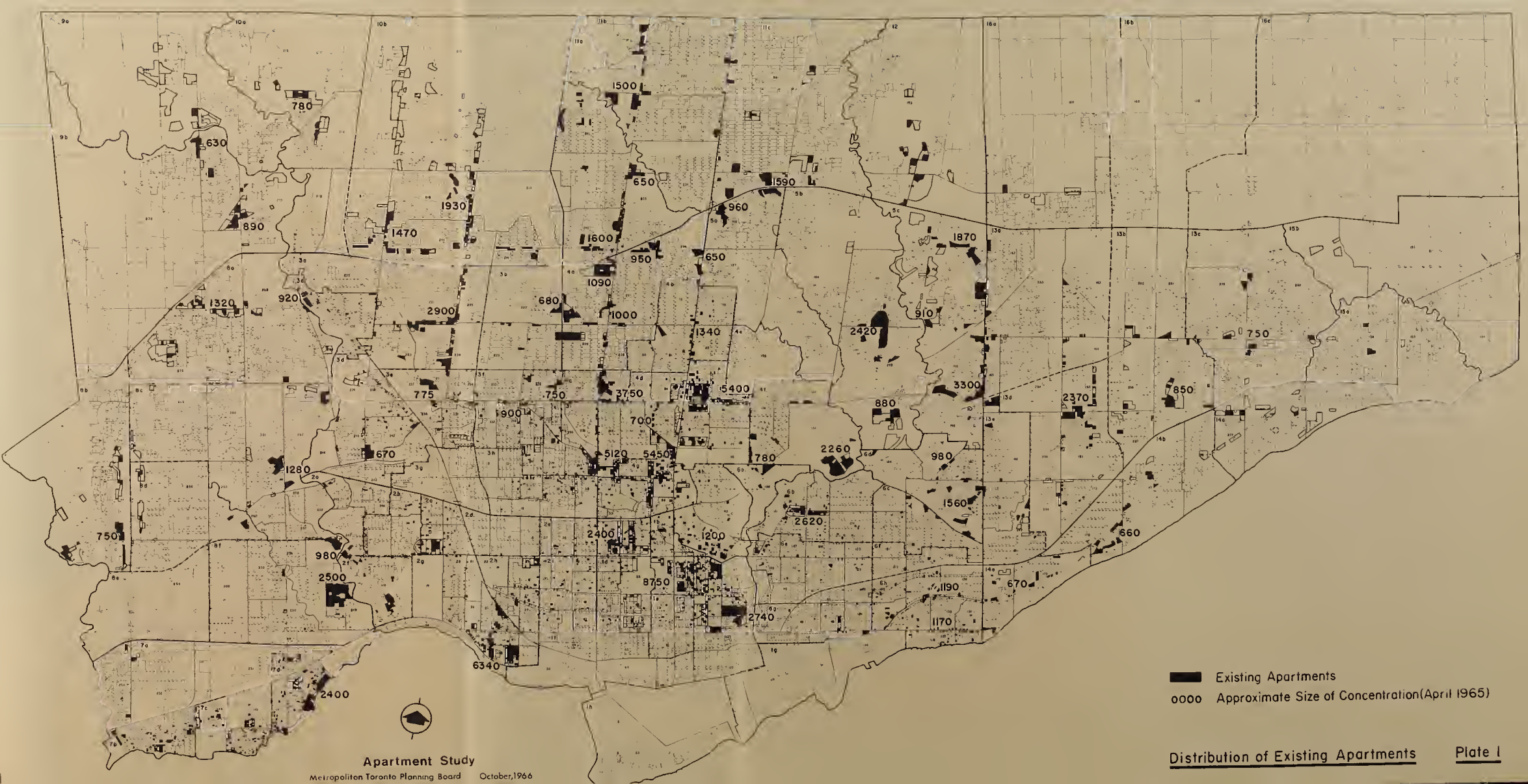
(a) A large part of the City of Toronto east of the Don River, extending north of Danforth Avenue into East York.

(b) A large part of the City of Toronto west of University Avenue, extending northwesterly in a broad arc to St. Clair-Keele.

(c) Central Etobicoke.

(d) The northerly part of the City of Toronto and the adjoining area of North York east to Leslie Street between Lawrence Avenue and Highway 401.

(e) Willowdale in North York.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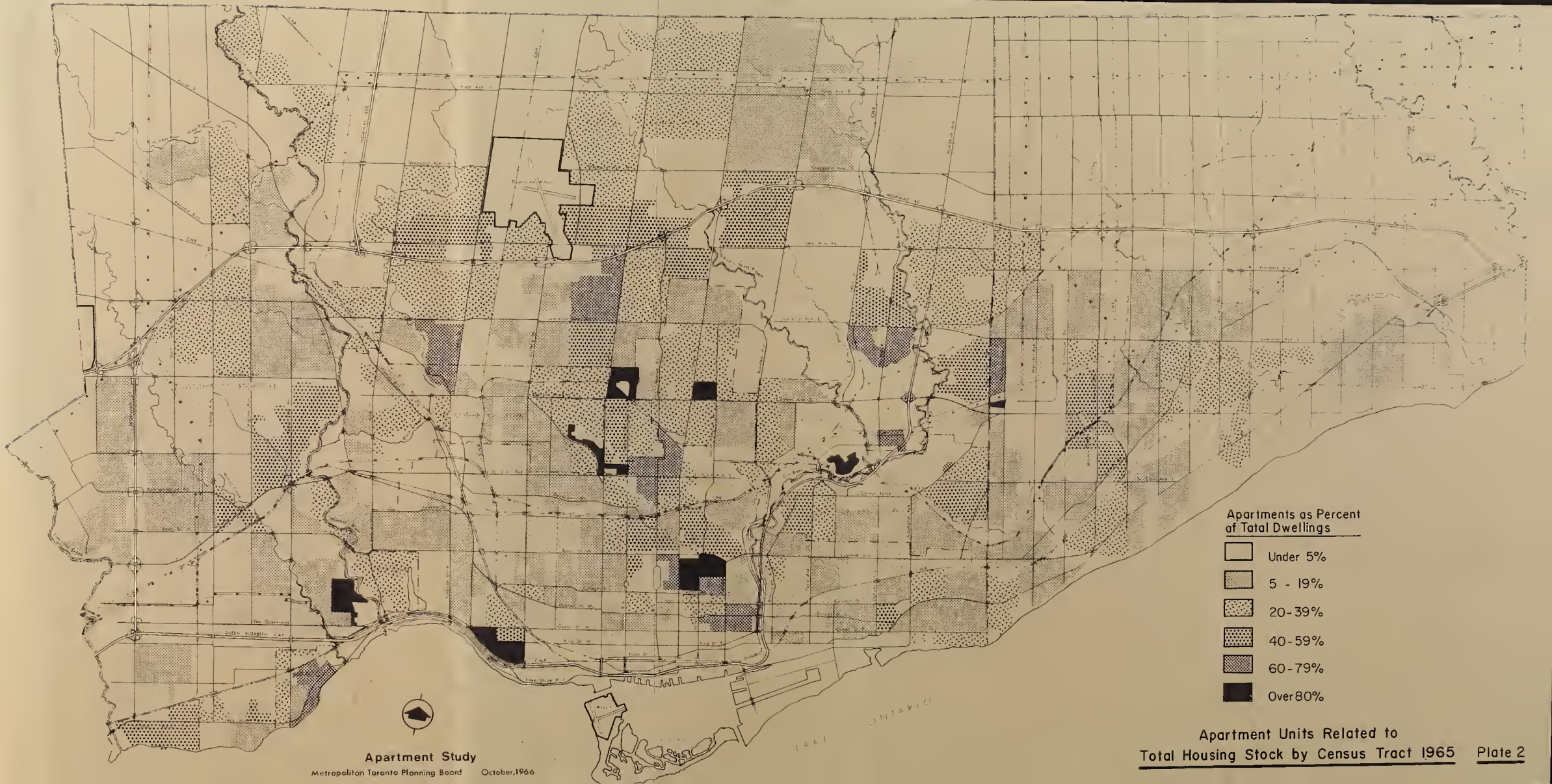
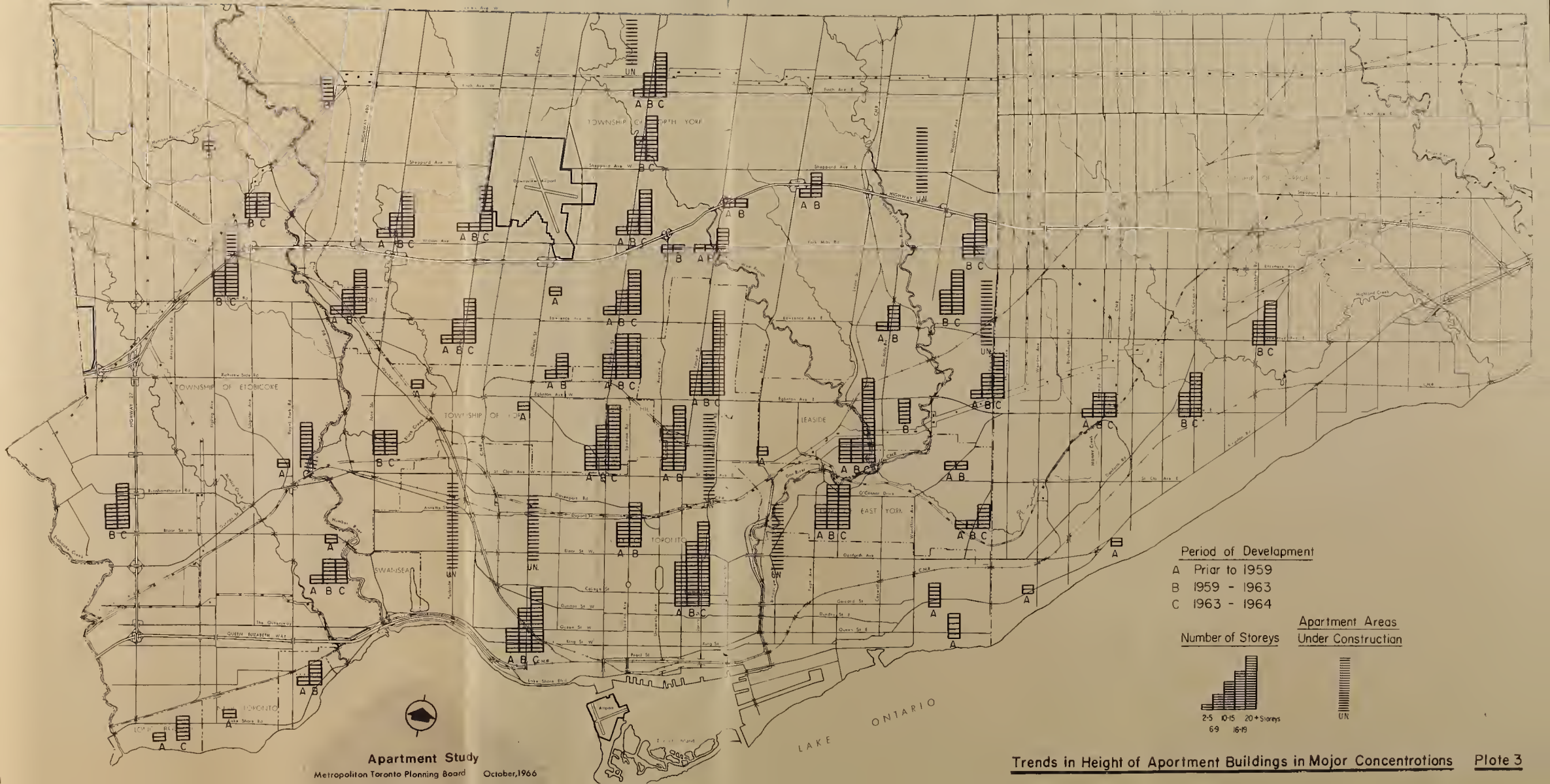
Existing Apartments
0000 Approximate Size of Concentration(April 1965)
Apartment Study
Metropolitan Toronto Planning Board October,1966
Distribution of Existing Apartments
Plate I



Apartment Study

Metropoliton Toronto Planning Board October, 1966

Apartment Units Related to
Total Housing Stock by Census Tract 1965 Plate 2



Apartment Study
Metropolitan Toronto Planning Board October, 1966

Trends in Height of Apartment Buildings in Major Concentrations Plate 3

CHAPTER 3

APARTMENT DEMAND AND SUPPLY

A. DEMAND

It is estimated that the number of dwelling units* in the Metropolitan Toronto Planning Area will increase from 470,000 to 1,050,000 including an increase in apartment units from 93,000 to 408,000, to house the estimated population increase from 1,724,500 (in 1961) to the anticipated limit of the serviced urban area of 3,550,000. It is forecast that this will be reached in about 25 years. Table 5 details the forecast** for dwelling units and apartments.

The addition of 320,000 new apartment units between 1961 and ca. 1990 would require an average annual building rate of 10,600 units. If the 47,000 completions for the period 1961 to 1965 are subtracted, the building rate for the remaining period 1966 to ca. 1990 will approximate 11,000 per year. This compares with an average annual rate of completions for 1958 to 1965 of 9,700. Such an increase might well be expected with a growing population and all the circumstances favouring apartment development. The sharp increase in apartment starts in the past two years supports the forecast upturn. From an annual range of about 8,000 to 13,000 in the Metropolitan Planning Area between 1957 and 1963, the apartment starts rose to 16,200 in 1964 and 20,900 in 1965. Since the rate of completions in these two years (average 10,330 units) was not substantially above that in previous years, a large backlog of units awaiting completion has built up. The rate of completions increased in the first six months of 1966 (8300 units), and, assuming a continuation over the rest of the year, a record 17,000 - 20,000 completed units can be expected. In addition, the number of units started January - June 1966 remained fairly substantial (6,000 units), and the backlog of 25,800 units awaiting completion at June 30 suggests a high rate of completions for some time to come. For planning purposes, particularly in the immediate future, we shall assume an annual average rate of growth of 13,500 units.

It is forecast that the average number of persons per dwelling unit for all types of dwellings will continue to fall, and will reach about 3.4 in the next 25 years compared with 3.7 in 1961.

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* "Dwelling Units" and "Households" are used synonymously in this chapter.

** Projection methods and supplementary data are described in Appendix A.

(See Appendix Table A). For apartments, it is expected that there will be reductions in the number of persons per unit for bachelor and for 1 and 2 bedroom types, and that there will be increases for 3+ bedrooms. The result of these changes cancel out to give an overall 2.19 persons per unit ca. 1990, which is the same as the 1961 average for apartments (See Appendix Table B).

In spite of the tremendous increase forecast for apartments, three-quarters of the population will still be living in housing types other than apartments by 1990. (See Appendix Table C). These other housing types might, of course, contain an increased proportion of row houses, duplexes and semi-detached. In round figures, 12% of the metropolitan population was living in apartments in 1961, and these units made up 20% of the total dwelling units. If the present trends continue, by 1990 there will be 25% of people living in apartments, and these will make up almost 40% of all dwelling units.

TABLE 5

DWELLING UNITS 1961 - ca.1990

METROPOLITAN TORONTO PLANNING AREA

		Single Family etc.	Apartments	Total
1.	1961 Dwelling Units	376,900	93,100	470,000
2.	Demolitions 1961-ca.1990	55,000	5,000	60,000
3.	1961 D.U's Remaining ca.1990	321,900	88,100	410,000
4.	New D.U's 1961 - ca.1990	320,000	320,000	640,000
5.	Total D.U.'s ca.1990	641,900	408,100	1,050,000
6.	Net addition 1961 - ca.1990	265,000	315,000	580,000

TABLE 6

DWELLING UNIT COMPLETIONS 1958-1965
METROPOLITAN TORONTO PLANNING AREA

Year	Total Dwelling Units	Number of Apartments	Percent
1958	23,843	11,869	49.8
1959	18,674	9,425	50.5
1960	15,789	9,016	57.1
1961	13,049	7,099	54.4
1962	19,937	12,014	60.3
1963	16,704	7,423	44.4
1964	22,983	11,265	49.0
1965	20,735	9,408	45.4
1958-1965	151,716	77,519	51.1
1966 (Jan.-June)*	13,050	8,307	63.7

* Census Metropolitan Area (= M.T.P.A. + Oakville)

B. POTENTIAL SUPPLY

For the purposes of this study, the amount of land potentially available for apartment development is comprised of most of the land presently zoned for apartment use but not yet used, plus lands not yet zoned for apartment use but for which apparently concrete and acceptable apartment development proposals have been made for both new development on vacant land and for redevelopment. These are discussed in the following subsections.

1. Zoning Potential

An appraisal of the future unit potential of land zoned for apartments was made based on land availability, and included land for which it appeared reasonable to assume a future development potential, but omitting the following:

(a) Land in the suburbs already efficiently used or planned for other uses. (Certain zoned lands in Scarborough loosely subdivided and containing single houses on large parcels were included, but similar areas were not found in North York or Etobicoke.)

(b) Land zoned at densities significantly lower than sites currently being developed, particularly in York Township (R3 zones) and the City of Toronto (zone 3).

(c) Sites within existing apartment areas which have apparently been rendered unsuitable for redevelopment by virtue of (small) size.

(d) Land zoned commercial, although this may be used for apartments in some areas.

Included in the category of zoned land were sites "committed" by municipal policy statements to apartment use, with actual zoning deferred pending the submission of satisfactory development plans.

The survey also included the fringe area municipalities. Since existing zoning for apartments in these areas is still at a level considerably lower than long-range potential development trends would indicate, the figures are not summarized in this chapter.

Zoned and land otherwise committed for apartment use in Metropolitan Toronto was estimated to have a potential of 173,780 units comprising 92,790 units (53%) from the development of vacant land and 80,990 (47%) from redevelopment. Theoretically, this unit potential would last almost 20 years at the 1959-1965 growth rate, and almost 15 years at the higher rate assumed for future development.

Development of the 61,000 unit potential in the City of Toronto would maintain the City's current position of approximately 36% in the overall distribution of the apartment stock, but only 11% of the committed unit potential in Metropolitan Toronto is located in the Inner Suburbs compared to their 24% share of the current metropolitan apartment stock. This, however, reflects the general unpreparedness of these areas to accommodate the redevelopment pressures which they are currently experiencing. The three outer suburbs account for 53% of the estimated Metropolitan commitment, with over 90% of the unit potential involving vacant land. At 1959-1965 growth rates, this apartment potential would theoretically be exhausted in about 22 years in North York, 15 years in Scarborough, and 13 years in Etobicoke.

2. Zoning Proposals

In addition to the zoned or committed apartment areas, the unit potential of currently known apartment proposals was estimated with reference to areas under study, proposed official plan amendments, and current construction trends on vacant land. The

total unit potential in these categories in Metropolitan Toronto was 166,100, comprising 67,740 units (41%) from vacant land and 98,360 units (59%) from redevelopment. In several areas, these figures are obviously overly optimistic with regard to actual development potential even over a period of 20 to 25 years, and will no doubt be reduced as area studies are completed.

The results of this survey are not described in more detail because many problems were encountered which render the figures more theoretical than a true reflection of development potential, particularly in terms of detailed distribution. For instance,

(a) Unit potentials derived from the conversion of permitted floor area ratios on available acreage are subject to variation from area to area.

(b) In the past two or three years, there have been significant changes in density policy, particularly through bonus density schemes, which add to the problem of obtaining unit conversions.

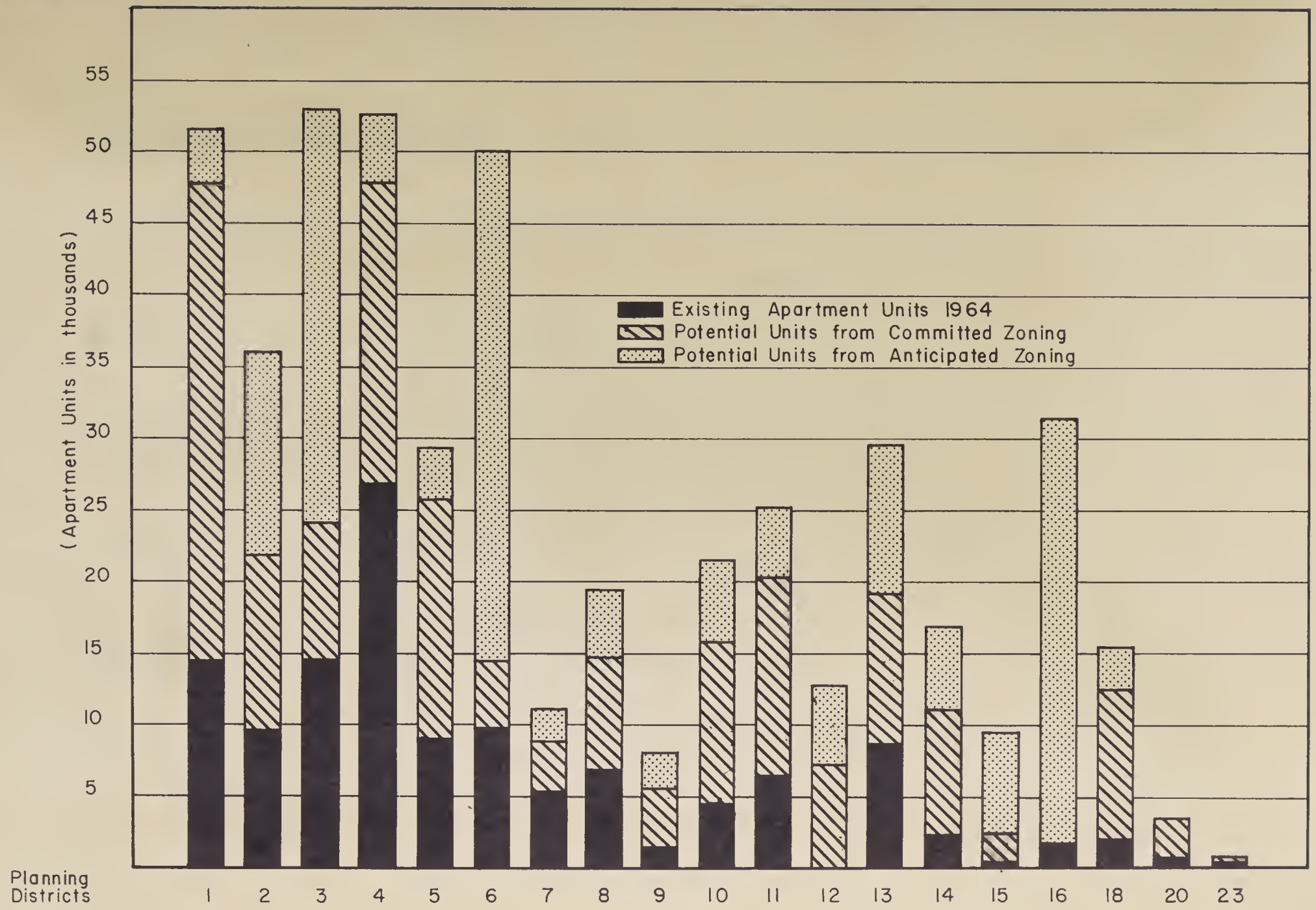
(c) The potential of many established redevelopment areas continues to diminish as the trend to larger projects continues and the replacement value of existing houses increases in line with rising house prices throughout Metropolitan Toronto.

(d) Although perhaps not a major problem, there is growing evidence of special categories of zoning which require detailed investigation of actual project design. For example, large RM6 zones in North York may be subject to site plan agreements which call for inclusion of town houses at lower density than that prescribed by the comprehensive zoning by-law.

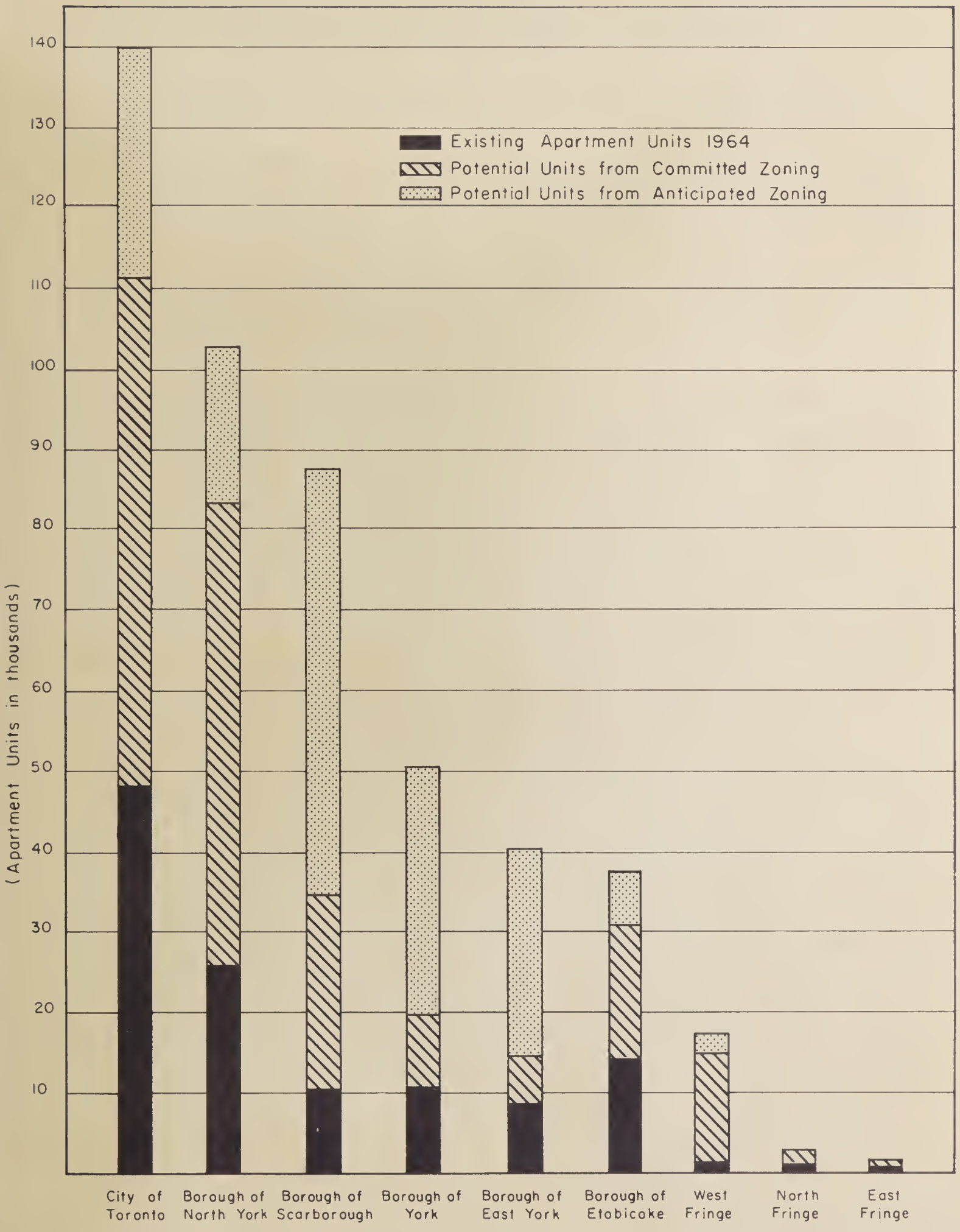
The main point to emphasise at this stage is the magnitude of the future development which the figures indicate. In particular, the potential from land already committed to development is in the order of at least ten times the anticipated rate of annual development, and the recent trend has been towards keeping this high ratio through rezoning. Thus, while in April 1964 there was a unit potential in active development areas of 90,000 units, and despite the fact that almost 36,000 units have been built or started since that time, the current unit potential remains about the same.

Herein lies the dilemma of planning policy in both the inner areas and the suburbs. It is desirable to indicate long-term proposals to establish a basis for stability in land use and land values; but it is apparent that the act of designating land for redevelopment increases its value. Unless all municipalities are prepared to control the availability of sites and maintain similar standards, the developer may be encouraged to seek lower-priced land for rezoning. Similarly, although a large zoning commitment is ultimately justified in relation to the long-term development potential of the suburbs, experience indicates that if much more land is made available than can be developed over a reasonable period of time, the servicing commitments of a municipality become very widespread and erratic, and some sites become obsolete if left vacant too long. On the other hand, it is difficult for municipalities to enforce orderly utilization of land, and there is little doubt that some zoned sites are held in speculation of further increases in land value.

Under present conditions, therefore, the powers of a municipality to control supply relative to demand are limited. Stricter locational criteria may be applied with more emphasis on area planning than on individual site approval, greater use of holding categories of zoning, and more frequent use of development agreements as the basis for rezoning. The essential requirement, however, would appear to be that all municipalities in the development area maintain similar policies toward development; and it is accordingly one of the purposes of this report is to provide such guidelines for overall development in the Metropolitan Planning Area, particularly over the next five years.



Future Apartment Potential by Planning Districts Figure 3



Future Apartment Potential by Metropolitan Boroughs and Groups of Fringe Municipalities Figure 4

CHAPTER 4

FACTORS AFFECTING APARTMENT DISTRIBUTION

Apartment development in Metropolitan Toronto takes place either as:

(a) Redevelopment of lands originally developed for the most part before 1945 and located primarily in the older, central and inner parts of the urban area, or as:

(b) New development on vacant lands located primarily in the metropolitan suburbs.

The earlier chapters of this Study have described the relative importance of redevelopment and vacant land development in their traditional areas of activity, and have shown how the differences between them are becoming less extreme. It has been suggested that among the reasons for the disappearance of these differences is the realization by the various municipalities that there may be an economic advantage in encouraging and attracting certain types of apartment development. It has also been suggested that the resulting inter-municipal competition for the assessment represented by apartment development has tended to lead to a breakdown in adequate development control and to haphazard growth. It is chiefly for this reason that it became necessary for the municipalities to cooperate with each other through the metropolitan machinery to ensure that all apartment development takes place on a rational basis of distribution and that competition for assessment does not lead to a continuous lowering of development standards, Metropolitan control over the general distribution of apartments should ensure such rational distribution and timing of development, and also serve to obviate the overdesignation of land for apartment construction. The great danger of overdesignation in existing built-up areas is the deterioration of sound housing through neglect in groundless anticipation of redevelopment, or the failure to use redevelopment resources in the renewal of already deteriorated neighbourhoods. In areas of new growth, overdesignation means failure to complete the community structure within a reasonably brief period of time, as required to make maximum use of already installed public facilities, and to justify the provision of other public services which an incomplete community could not support.

For the purposes of this Study, it is important to determine the nature of the changes in apartment development affecting the distribution of apartments throughout Metropolitan Toronto, and to evaluate these changes for their implications on the form of the urban structure.

A. GENERAL CHARACTER OF THE DEVELOPMENT AREAS

By virtue of historical growth factors, affecting intensity of land use and development of transportation facilities, the inner urban area, and particularly central parts of the City of Toronto, have an inherent potential and demand for high density apartments, related in particular to

(a) Proximity to the dominant employment centre and the largest concentration of shopping, recreational and cultural facilities in the Metropolitan Area.

(b) The availability of rapid transit and a high level of supplementary public transit service.

(c) An association with moderately high residential densities, involving property which by virtue of age and increasing land values should desirably be redeveloped for more intensive use.

There are several reasons, however, why the comparative growth rate of recent years may not adequately reflect the apparent advantages of these conditions:

(a) There are large parts of the inner urban area, particularly the west central and easterly parts of the City of Toronto, which are not attractive to private investors and developers because:

  (i) Ethnic characteristics of the existing population appear to mitigate the apartment demand.

  (ii) The low physical condition and value of certain property which could usefully be redeveloped is masked by an income value based on high occupancy reflecting the housing shortage for lower income families. In Plate 4, the absence of apartments is particularly noticeable in the areas recently designated as "Renewal Districts" in the Metropolitan Urban Renewal Study.

(b) Since neither private nor public resources have been directed towards overcoming this situation, private redevelopment has taken place in, or on the fringe of, medium to high-value residential areas because considerations of prestige, economics and population relocation reflect a better investment risk. This approach to redevelopment produces accommodation, but is not necessarily an ideal approach towards the provision of housing to meet all types of need.

(c) As private redevelopment continues to press into areas where the existing housing stock is sound, neighbourhood opposition becomes organized against reasonable as well as unreasonable proposals.

The development of apartments in less densely populated and generally less accessible parts of the suburbs is not entirely new, and the earlier low-rise apartments were basically identified with the spread of family housing to the open spaces and clean air of the suburbs. In contrast to the problems of redevelopment in the inner areas, there are fewer obstacles to change from vacant to developed land; and this comparison alone, under conditions of high demand, would tend to account for the emphasis already placed on the role of the suburbs in apartment distribution.

It should be noted, however, that the location of apartments outside the traditional high-density areas is a basic component of Metropolitan planning policy for the complete development of the urban area based on the following hypotheses:

(a) Increases in suburban densities are encouraged to promote variation in housing types and economy in the provision of a high level of public services.

(b) Although the central area will remain the major focal point of commercial activity and employment opportunities, it is estimated that over 90% of the net increase in employment opportunities in Metropolitan Toronto to 1980 will take place in suburban locations. Plate 4 shows several important areas of industrial employment in the suburbs which can already be related to apartment concentrations, particularly in the middle- to low-rental category.

(c) Mass transportation facilities will increase the demand for apartments in the suburbs, as already shown by the influence of the Don Valley Parkway and the MacDonald-Cartier Freeway on apartment location (Plate 4). By 1970 there will be three subway terminals in the suburbs which will materially improve the accessibility of these areas.

B. AVAILABILITY OF LAND

The high level of apartment demand also emphasises differences in the availability of sites for apartments in the two sectors of the development area.

In the older urban areas, redevelopment involves a costly, time-consuming and precarious process of land assembly, with the problems tending to multiply as projects increase in size, partly in response to planning policies which encourage more comprehensive redevelopment. The dimensions and density of existing lots affect the cost of land assembly in terms of the ratio of land to building values, the time involved in assembly, and the prospect of "hold-outs" if the number of negotiations required increases. Even small houses with a relatively low assessed value command a price reflecting cost of relocation in a demand market of rising prices.

Recognizing the risk of generalizing a complex matter, the following characteristics of recent redevelopment sites in the City of Toronto could be observed as follows, (noting that bonus density provisions require a site of at least 50,000 square feet):

(a) Site depth is rarely less than 150 feet, more commonly 200 feet, and often involves assembly of two tiers of lots to provide a full block depth of 250-300 feet.

(b) In the majority of cases, but particularly in sites involving two tiers of lots, the width of individual properties comprising a site averages at least 35 feet, a figure which would not appear to decrease significantly even where lot depth is greater than normal. The lowest average lot width recorded of 26 feet was associated with a lot depth of 190 feet.

(c) The combinations of lot dimensions produces a normal range of net densities from 3 - 7 lots per acre (maximum 9 per acre) or an average net density of about 5 lots per acre.

(d) In a comprehensive block assembly at Oakmount-Mountview—Bloor, the different lot characteristics on each street are reflected in the average acquisition costs as follows:
Oakmount - lots average 40' x 190' (5.5 lots per acre);
costs average $5.35 per sq. ft.
Mountview - lots average 25' x 120' (14.5 lots per acre);
costs average $8.56 per sq. ft.
Assembled site averages 9.0 u.p.a.; costs average $6.60 per sq.ft.

(b)

(c)

(e) In comparison, the lot characteristics of some areas designated for apartment use but not yet successfully assembled, are quite different. For example, in the Duplex-Berwick and Duplex-Helendale sectors of the Eglinton area, complete block depth is required to produce a site depth over 200 feet (with average lot widths of 25 feet producing net densities of 15 or more lots per acre).

By contrast, vacant suburban land presents no problems of assembly or rehousing; and though rezoning controversy does arise, the mix of housing types can be largely determined at the time of subdivision. In practice, few subdivisions are now designed without blocks for apartments; and it becomes difficult to know to what extent this is speculation in land values and/or a reflection of the developer's need to recoup immediately increased costs of land and services, particularly as the supply of serviced land in Metropolitan Toronto rapidly diminishes.

C. COST OF LAND

It is considered that land costs per square foot of site area, or costs per unit allowed by zoning, can be somewhat misleading for comparative analysis in view of the variations in density and rental structure which occur in apartments throughout the Metropolitan Area. Instead, land costs are related to square footage of permissible gross floor area which most municipalities use as their basic criterion of density, and which would appear to allow more meaningful comparisons between different apartment types.

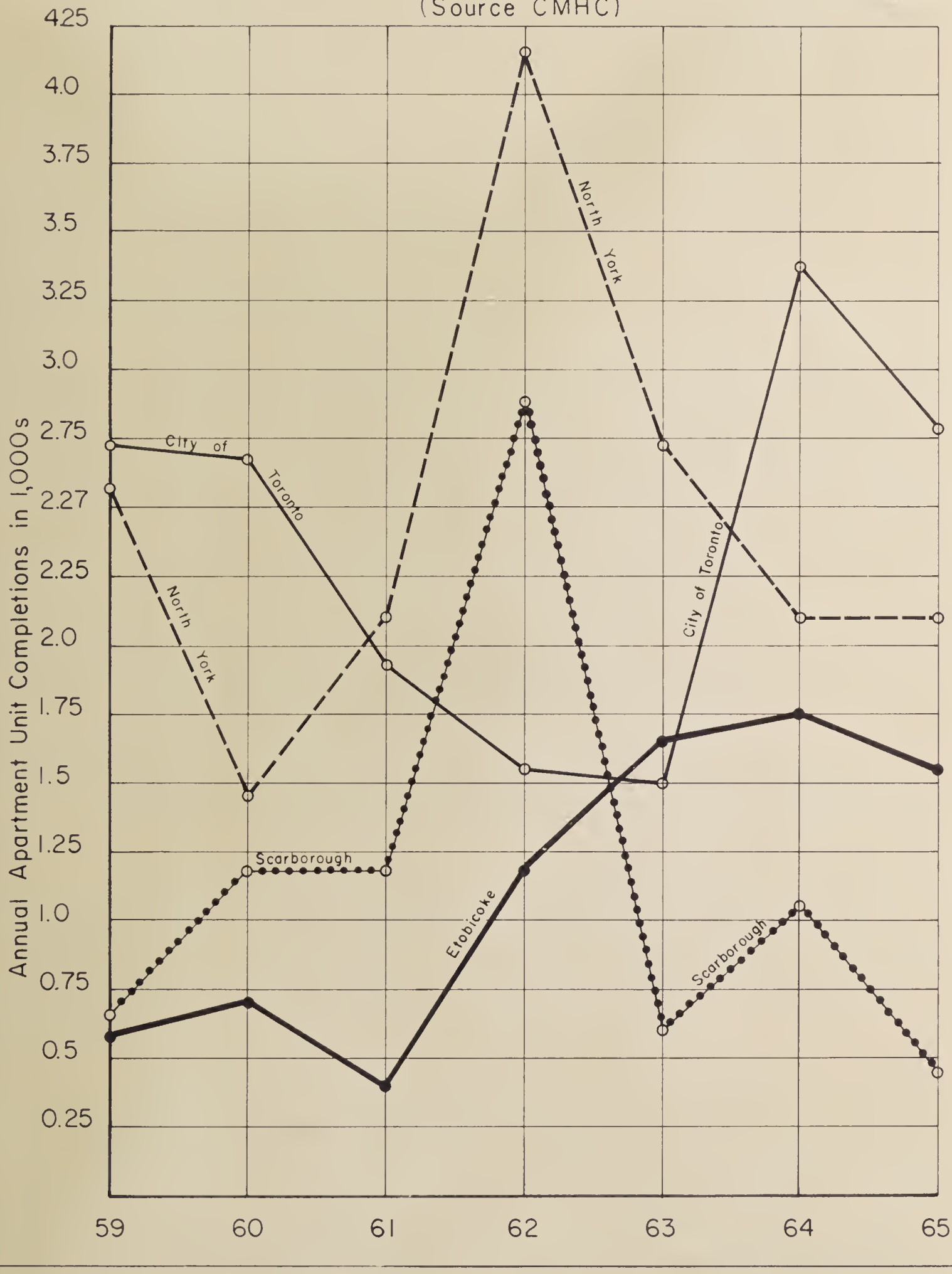
Limited sources of available information on land prices for post-1960 development show costs for vacant land in the range of $0.80 to $1.20 per square foot of permissible gross floor area, with occasional prestige sites costing up to $2.00. In comparison, land costs in the inner urban area are generally $2.00 to $2.50 (including high-rental apartments in Forest Hill at an F.S.I. of 4.0), and in the major apartment areas of the City of Toronto (Eglinton, Parkdale, High Park and Downtown), the range is $2.50 to $3.00, with examples of costs $4.00 and over in the (high-rental) area of Avenue Road-St. Clair.

The general conclusion which can be drawn is that while apartment locations in the inner area, and particularly along the subway in the City of Toronto will command generally higher rents than the suburbs to offset the higher land costs, there is every indication that under present conditions of high demand the permitted densities for vacant land in the suburbs are very competitive with densities permitted for redevelopment in the inner area.

Apartment Unit Completions in Major Municipalities 1959-1965

Figure 5

(Source CMHC)



D. AVAILABILITY OF SERVICES

There are servicing problems in many parts of the inner urban area typified by a chicken-and-egg impasse over the need for new services to promote redevelopment and for new development to finance services. In actual fact, a considerable amount of redevelopment has occurred without the necessary improvements in services being made; but more recently, there have been areas subject to a development freeze pending sewer improvements. Sewer reconstruction costs may now be passed on to developers to a greater extent than previously in the inner urban area.

E. MUNICIPAL POLICIES

In 1959, the City of Toronto radically revised its apartment zoning regulations largely in rejection of the type or density of redevelopment which had been taking place. Statistical evidence suggests that the rate of apartment development in the City declined steadily from 1959 (when permissible densities were reduced) to 1963, at which time the annual rate was lower than in each of the three large suburban municipalities (Figure 5). A reversal of the trend in 1964-65 could be seen to coincide with further changes in City policy:

(a) The designation of large new apartment areas, several of which quickly attracted building commitments.

(b) The introduction of density bonuses involving 15% to 20% increases in permissible floor area ratios in several areas.

The average annual rate of less than 2,000 units per year between 1959 and 1963 increased to 3,000 between 1964 and 1965. Significantly, this increase took place at the expense of apartment development in other municipalities rather than as part of any great increase in the Metropolitan rate of growth.

Other inner urban municipalities have subsequently increased their density limits to stimulate development, generally through bonus density schemes. While City of Toronto planning policy continues to emphasise subway locations for maximum densities, however, comparable and even higher densities have been approved in other municipalities without immediate proximity to a subway or major commercial subcentres as locational criteria.

In the suburbs, municipal policy towards apartments is generally favourable, as shown in the amount of development permitted, and, until quite recently, density limits have been fairly stable. Some recent increases in density have been noted but have been accompanied by the introduction of controls on the number of larger 3-bedroom units designed to limit the potential school population. The incidence of apartments designed for family households is higher in the suburbs than in the inner urban areas, as noted in the 1961 Apartment Survey. General occupancy levels still indicate, however, that these are small family households; and there are new apartment buildings in the suburbs which have occupancy characteristics little different than those of more centrally located apartments, and some which even restrict tenancy to adults. The number of 3-bedroom units provided appear to be increasing in accordance with the prediction that more families will choose or will have to live in apartments. In this event, suitable alternatives to the high-rise building, which appears to be favoured in current construction but which does not generally provide suitable accommodation for families with children, will have to be found.

Town houses and maisonettes provide satisfactory family rental accommodation but are only slowly being added to the total housing picture, and have not been actively encouraged in the suburbs for the following reasons:

(a) Initially, there was probably a psychological factor in that row houses were associated with low-income families and poor environment, an attitude which early examples did little to dispel.

(b) Related to this was the feeling that maintenance problems would arise, particularly if individual unit ownership was involved.

(c) On a municipal cost-tax revenue basis, town houses would generally prove to be a liability as far as educational costs were concerned.

Assuming a softening of the attitude towards the quality of town house developments, as might be inferred from more recent experience, there are certain municipal policies which would have to be modified to encourage a greater amount of town house development, such as:

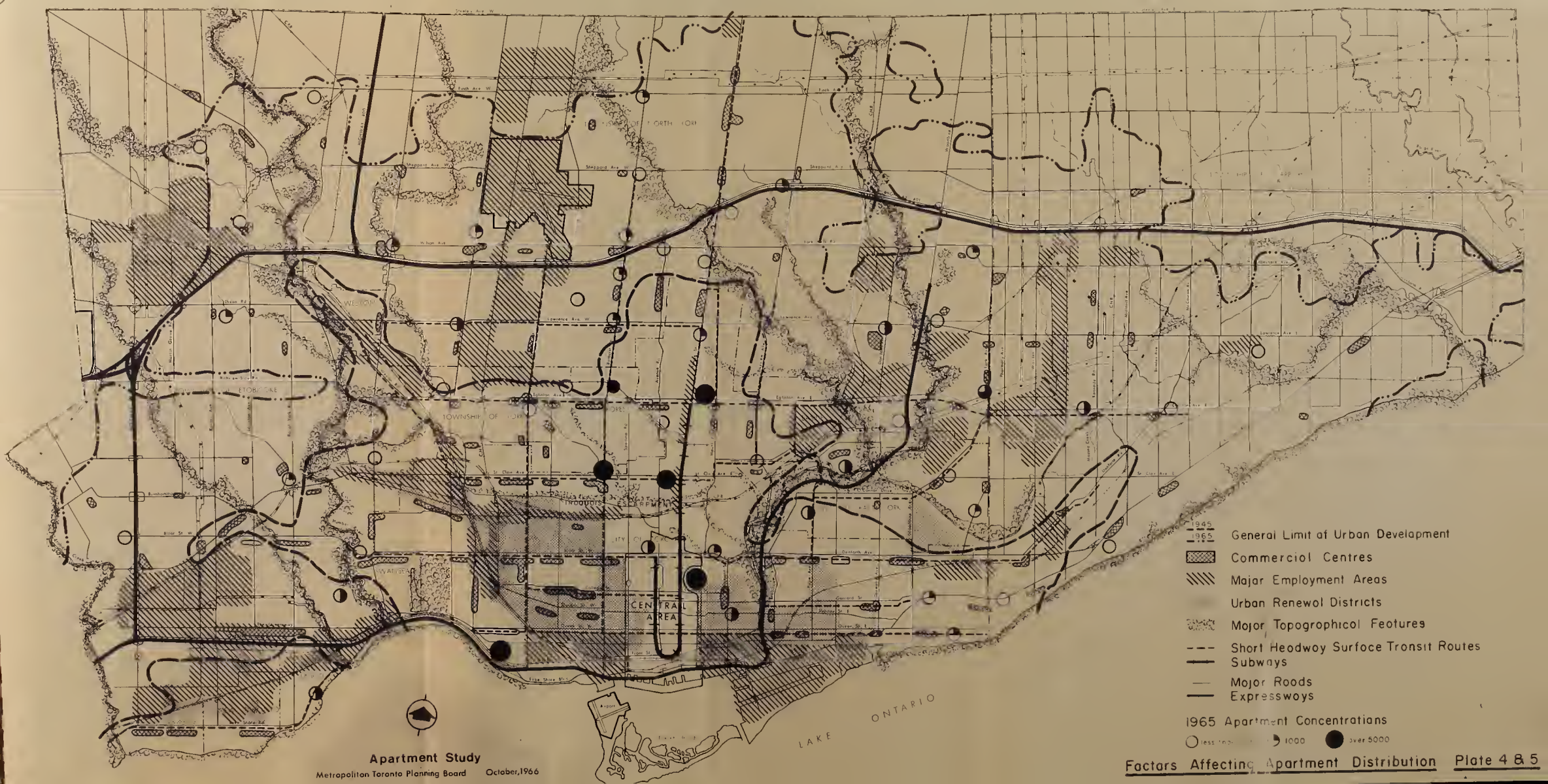
(a) Reconsideration of subdivision requirements for minimum lot frontages which presently preclude unit ownership.

(b) Reconsideration of zoning requirements for all lots to front onto a public street which presently limit the scope of site development even for rental purposes.

In addition, the problem of maintenance, which is presently controlled by the requirement for single ownership and management of rental projects, could be reduced by legislation recognizing condominium type ownership.

Any emphasis on town house ownership would be primarily in response to recent trends in house prices. It will probably be acceptable to many family households for whom ownership remains a dominant interest, and will also be attractive to developers because it eliminates the necessity of management.

Although in a somewhat different context, it is also interesting to note that in the City of Toronto and East York, where apartments constitute almost the entire complement of new housing units, policies are being initiated to encourage the integration of town houses into apartment projects in ratios up to 10% of total units.



Factors Affecting Apartment Distribution Plate 4 & 5

CHAPTER 5

FACTORS AFFECTING APARTMENT LOCATION

A. LOCATIONAL CRITERIA

Some of the factors discussed above in connection with the general distribution of apartments will also be found to influence the choice of location of individual projects. Such problems as the availability of sewer capacity, school accommodation, need for redevelopment, etc., usually arise as criteria of specific location within a general area, and in addition are matters of timing and cost. It is difficult to introduce such factors into a basic theory of locational criteria for an extensive development area.

A detailed study of existing apartment development distinguishes those criteria of location which:

(a) Indicate that a site is more suitable for apartments than for other residential uses where they permit a convenient relationship between land uses of varying intensity to be established.

(b) Relate the intensity of land use to the basic urban structure, and in particular reflect the need to provide for the efficient movement of large numbers of people.

(c) Help to determine the relative importance of specific locations for intensive development during the growth of the urban area.

These criteria emphasize the placing of apartments close to certain facilities in order to afford the optimum convenience and amenity to the large number of persons living in high density surroundings, but they may be modified by conditions within the local environment which may affect the choice or extent of the area to be developed (eg. the stability of the existing residential properties).

The existing apartment concentrations have been studied with respect to locational criteria under the following headings:

1. Proximity to Commercial and Community Facilities

The relationship between major commercial areas and apartment concentrations is illustrated in Plate 5 from which the following conclusions may be drawn:

(a) The aggregation of apartments close to the large mixed commercial centres reflects a substantial increase in the intensity of land use over a fairly wide area.

(b) In the inner urban area, there is a considerable amount of strip retail development in which the lack of a focal point for commercial development generally reflects in the spread of apartments.

(c) Many of the older retail areas contain a large number of small establishments, and while these commercial areas are extensive in terms of the frontage which they occupy, they do not, as commercial centres, prove attractive to apartment development. Not all commercial concentrations attract apartment development, possibly because of the marginal characteristics of the commercial areas.

(d) Although many of the larger suburban shopping centres are ringed by apartments (Bathurst-Lawrence, Jane-Wilson), there is little organized relationship between the "planned" shopping centres and the generally uncoordinated apartment development which, because of its dispersal, does not adequately reflect the increased intensity of land use in the area (for example, at Eglinton-Victoria Park in comparison to Don Mills).

In attempting to justify the location of apartments on the basis of proximity to commercial areas, particularly in the suburbs, it is necessary to stress a close design relationship and to involve a large number of apartment units with a retail centre large enough to support shopping goods as well as convenience goods outlets.

The location of individual high-rise buildings in a low-density residential area on the basis of proximity to a small group of stores should not be permitted as basic locational policy. Any increase in density in this situation should result in town houses or other low-rise buildings.

2. Proximity to Transportation Facilities

Movement of people is one of the most important aspects of metropolitan planning. Any concentration of people resulting from intensive forms of land use should have easy accessibility to transportation facilities. There is a hierarchy of transportation facilities all involving public expenditure but emphasizing both public and private means of conveyance. (Plate 5).

The following points relating to transportation facilities are relevant to the discussion of apartment location:

(a) Most apartment concentrations combine with commercial development to emphasise a nodal point on the transportation network, but subsequent growth tends to produce development somewhat removed from the point of original attraction.

(b) There is a close relationship between nodal points on the subway system and the larger apartment concentrations (with the exception of Parkdale). The major apartment concentrations which have a direct subway relationship contain about 45% of the total number of apartments in major concentrations in the inner urban area and 60% of those in the City of Toronto. The Eglinton area at the subway terminal has experienced more private apartment development between 1959 and 1964 than any other area in Metropolitan Toronto.

(c) A less direct subway influence could be applied to development in areas up to 1½ miles away from subway stations, such as at Bathurst-St. Clair and Bathurst-Eglinton. In these instances, apartment development is based on quick feeder transit to a subway station along a major arterial road.

(d) The relationship between other modes of transport and large scale apartment development is less strong:

  (i) Parkdale stands out as the lone example of large scale apartment development in the southerly part of the inner urban area, but is served by a series of relatively high capacity east-west streetcar lines. Parkdale also has access direct to the Gardiner Expressway.

  (ii) Although the concentration of apartments along Bathurst Street is accompanied by bus service scheduled at more than 15 per (rush) hour, similar or higher levels of service on Dufferin Street and North Yonge Street do not appear as important factors related to apartment location.

  (iii) In general, the location of apartments in the suburbs reflects the fact that public transportation has not been competitive with the automobile.

(e) Apartments are a significant element in the land use pattern adjacent to most expressway interchanges and major arterial intersections in the developed urban area.

(f) Partly due to competition with commercial and industrial uses at major intersections, and partly reflecting the piecemeal nature of the development process, a considerable amount of apartment development pre-empts long stretches of arterial road frontage. Thus, development is based on grounds of immediate accessibility and the principles long prevalent in zoning policies that arterial frontage is unsuitable for low-density residential use.

Much of this older suburban apartment development is of a less intensive character than current high-rise buildings. Many sites still remain to be developed on frontages already committed for apartment use; but as a matter of future policy, it could be anticipated that considerably more locational emphasis will be given to focal points of interest and intensive land use.

Road frontage developed for strip commercial uses, especially in older parts of the area, presents a particular problem. It is generally agreed that the rejuvenation of commercial activity will depend on the regrouping of land uses; and in this regard the use of road frontage for apartment development may be a factor in initiating and complementing such change.

3. Proximity to Open Space

Apart from the recreational aspects of open space, there is little doubt that the prospect of a scenic view from a high-rise apartment site has been an important factor in site location. The lake view from Parkdale and Mimico, and the valley or city vista along the valley escarpment of the Don are good examples. In other areas, some apartments in a major concentration will have a close visual relationship to open space, such as the Humber valley at Bloor, Berry Road, Weston, the Cedarvale Park ravine at Bathurst, the west branch of the Don at Hoggs Hollow, Bathurst-Sheppard and Bathurst-Finch, or Rosedale ravine.

The vistas and close visual relationships between apartments and open space are important considerations in creating a desirable environment for apartment dwellers. Open space also plays an important

role in the successful integration of apartments into areas adjacent to less intensive development. These are essentially design considerations which are valid when other factors are present to justify the choice of a given location for intensive apartment development.

4. Conditions of Local Environment

Having emphasized the grouping of intensive forms of land use, it follows that the location of apartments, particularly high-rise, should be carefully considered in terms of its relationship to low-density residential uses. Complete isolation is rarely possible or desirable, but some form of separation must be sought to complement the effect of site set-backs, in order to protect the privacy of the low-density dwellings; and the access control and proper traffic circulation should be maintained in order to reduce the impact of such traffic on the surrounding development. Such considerations are particularly important in redevelopment areas where the old street systems are likely to remain. The location of apartments in relation to other land uses, particularly low-density residential uses, is reviewed in detail in the following section.

B. APARTMENT CONCENTRATIONS AND LAND USE RELATIONSHIPS

A review of existing apartment concentrations indicates that there are two basic methods of development: 1. by accumulation
2. by project design.

1. Accumulation

The accumulation of apartments on a lot by lot basis involving multiplicity of land ownership takes two different forms (see Plate 6):

(a) Area (re)development over several blocks with the original (grid) street layout largely remaining intact, as typically found in the large apartment concentrations in the inner urban area.

(b) Linear development along one (arterial) road frontage with extension in depth from the road limited to one lot. The main emphasis in this type of development appears in the suburbs particularly along Keele, Bathurst, Wilson, Victoria Park, Eglinton and Kennedy. In most cases, the development focuses on a major intersection, with some diversion from road frontage occurring around commercial centres or open space.

Both forms of cumulative development are likely to contain vestiges of former residential uses where they occur in redevelopment areas, or where there is a lack of cohesiveness or design focus. Both forms are susceptible to growth by zoning precedence, unless boundaries are well-defined and maintained. In particular, extensions of the linear form are likely to become somewhat removed from the focal point which was the original justification for the intensive development.

There are three main problems involved in piecemeal area redevelopment:

(a) Isolation of sites too small to redevelop.

(b) Potential neglect of providing adequate open space.

(c) Difficulty in determining an appropriate boundary between different residential uses.

In the City of Toronto, however, new zoning policies which have been recently adopted are a good example of how these problems can be overcome by encouraging comprehensive assembly of sites and by including lower buildings in the high-rise complex.

The linear form of development raises particular problems of access control along arterial roads, standards of environment along arterial roads, and appropriate spatial relationship between high-rise apartments and abutting single-family houses at the rear. Although a large commitment has already been made through zoning to frontage development on arterial roads, the principle of orientation to the road and exclusion of low-density uses has been modified wherever practical. More emphasis is now being placed on the depth of sites and the provision of roadway or open space boundaries, rather than common lot lines, between different intensities of use.

2. Project Design

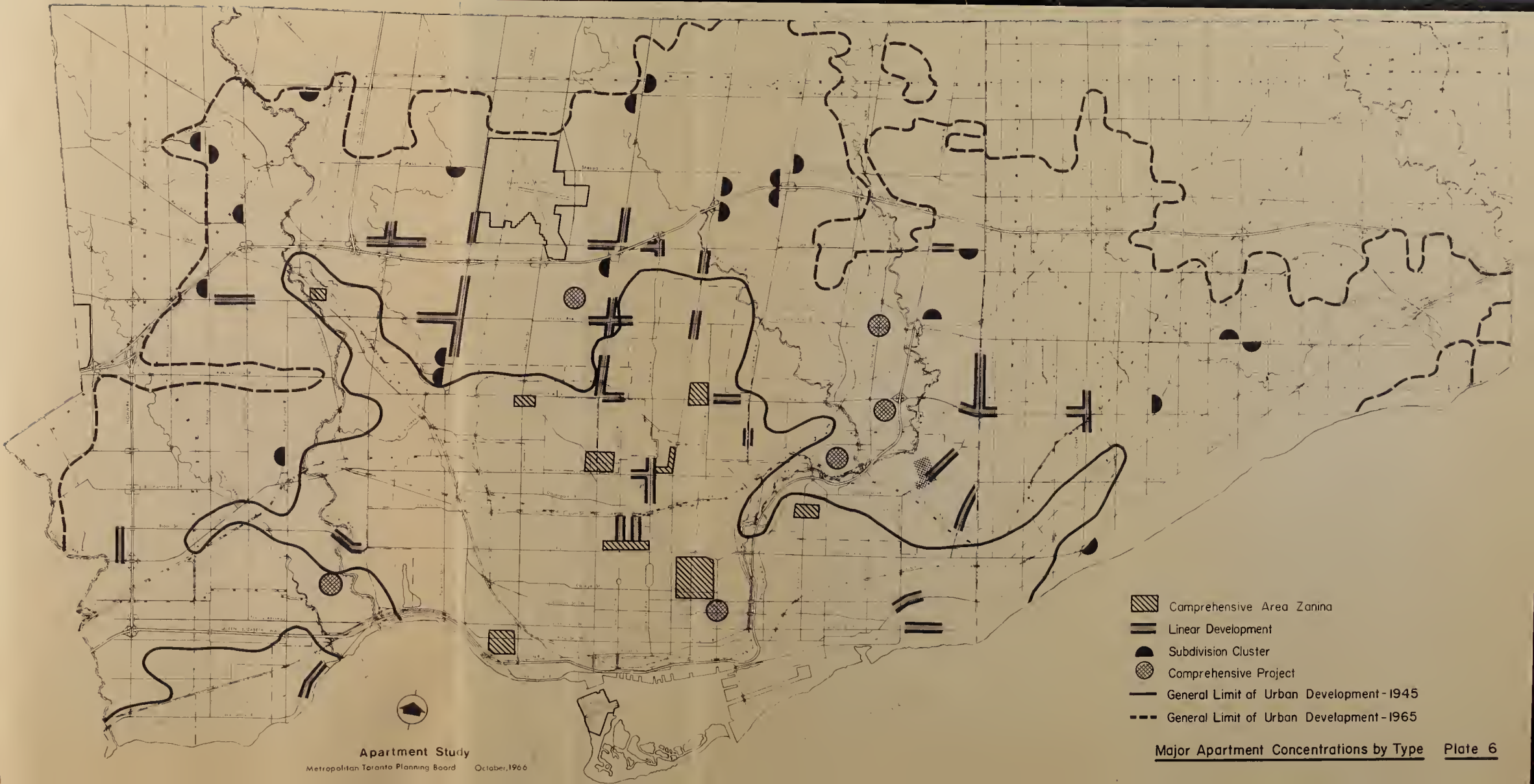
Apartment projects involving single ownership or a design conceived for a reasonably large area, may also be divided into two types:

(a) The large comprehensive project, developed as a unit and generally incorporating its own collector road system, on-site community facilities, and often a variety of housing types. Don Mills

centre, Flemingdon Park, Thorncliffe Park, St. James Town and Berry Road are typical of this classification, along with two of the larger public housing projects, Lawrence Heights and Regent Park.

(b) Subdivision clusters, involving parcels set aside for apartment use within an overall subdivision design, usually along a collector street and close to arterial roads. Several owners' or developers' interests may eventually be involved, and there may be some variety of housing types. Being associated with the subdivision of vacant land, clusters of this type are usually confined to the suburbs in such locations as Bayview - Highway 401, Underhill-Lawrence, Islington-Rexdale, and Humbertown.

In both these types, the design factor sets the limits of growth, provides an opportunity to define an appropriate relationship between different land uses, and allows adequate scope to plan for the creation of useable open space. The trend to high-rise construction in the suburbs highlights the importance of designing for appropriate land use relationships in the subdivision clusters. Unfortunately, there are examples of sites designed for 3 or 4 storey apartments, where the subsequent change to 6 or 7 storeys with minimum set-back standards resulted in a very poor relationship to parallel single-family houses sharing a common lot line.



Major Apartment Concentrations by Type Plate 6

CHAPTER 6

CONCEPT AND PLAN FOR APARTMENT DISTRIBUTION AND LOCATION

A. CONCEPT

1. Basis

The foregoing description of trends in apartment distribution and location provides a basis for a concept which will relate the estimated apartment demand to the achievement of appropriate population densities throughout the area, and which will allocate development potential to sites which complement programmes for the provision of utility services and transportation facilities.

Any policy relating to apartment distribution and location must specify two areas of involvement:

(a) A long-term projection of apartment demand as a guide for (district) official plan proposals.

(b) The short term implications of development trends on the rate at which land should be made available by actual zoning.

Future policy regarding distribution and locational criteria would be defined in terms of the need to emphasise the relative priorities of areas for intensive development over the period of time during which it is feasible to maintain a policy derived essentially from current trends. The proposed basis for the future apartment distribution and location emphasizes:

(a) The downtown core, where the intensity of residential development is clearly affected by proximity to a high level of commercial activity and transportation capacity.

(b) The inner urban area, and within it, a hierarchy of sub-centres which reflect:

(i) Immediate proximity to the subway; or

(ii) Orientation to the subway, based on other connecting high capacity transit systems.

(c) The suburbs, where large concentrations of high-rise apartments should be related to focal points on major growth lines, especially those supported by subway extensions and expressways. This emphasis is particularly important in the fringe areas because the impetus of sub-urban development progressively carries over the Metropolitan

Toronto boundary. Although high-rise buildings will be included, more town house or low rise apartments in sub-urban locations or areas less suited to intensive development by virtue of relative inaccessibility, could be anticipated.

From this conceptual base, a plan of distribution has been developed with particular reference to the following considerations:

(a) Development programmes and major facilities, particularly those involving public expenditures which appear likely to influence or be most beneficially coordinated with future apartment development (see Plate 7).

(b) Municipal plans for future apartment growth within the framework of established residential land use. (The stability of residential areas is implied rather than determined by specific criteria, this being one more factor, together with housing demand and municipal policies, which is particularly susceptible to change.)

(c) The structural framework of the urban area to which the future demand for apartments can be best related.

2. Growth Areas

Thirteen areas in Metropolitan Toronto were therefore defined to provide an essential framework for the future distribution of apartment demand, having regard to:

(a) Variations in apartment types and occupancy characteristics.

(b) The influence of major transportation facilities on apartment location.

(c) The committed or proposed potential for future development which exists in any area related to the pattern of land use intensity. A description of these areas follows.

(i) Central Area

This area is defined on the basis of

(a) The historical association of the urban core with high density apartments, mainly providing non-family accommodation.

(b) The continuing relationship between apartment growth and commercial subcentre development focussed on the subway.

Three problems appear to be identified with apartment location within this area:

(a) Lack of private interest in redevelopment of the areas south of Bloor showing considerable degrees of deterioration and obsolescence. Interest may be rekindled by municipal cooperation in land assembly or reappraisal of density policies.

(b) In contrast, developer interest in quality low-density residential property north of Bloor, which is increasinly subject to ratepayer opposition aroused by the linear (in the Annex) or random (in South Rosedale) intrusions of apartments into an area.

(c) Variations in density policy between the City of Toronto and other municipalities within the area.

Committed (29,000 units) and proposed apartment areas (19,000 units) represent a future unit potential of nearly 50,000 units, more than half of which should be utilised in the next ten years if the area is to continue its dominant role in apartment distribution. A further impact has been made on the area by the completion of the Bloor-Danforth Subway, and future plans for the Spadina and/or Queen Street transit systems provide further incentives for major redevelopment schemes.

The designation of new apartment areas and revision of density policies have led to renewed building activity in the Eglinton, St. Clair, and Downtown (St. James Town) districts, and similar activity could be anticipated in other parts of the area, particularly Bathurst-St. Clair, Yonge-St. Clair, Bloor-Spadina, and/or Bloor-Bathurst.

(ii) Danforth Avenue

The easterly part of the inner urban development area, formerly dependent on the street car system which in fact led to dispersal of commercial uses and apartments, now derives greater identity as an apartment development area as a result of the completion of the Danforth Subway. The majority of the development in this area previously took place in East York rather than in the City of Toronto. It is anticipated that the subway will renew the interest of private developers in the City and the southerly part of Scarborough as well as provide the impetus for urban renewal schemes in areas of property deterioration in these municipalities. Existing zoning commitments

(3,000 units) in the area are not large, and further site designations could be anticipated to reflect an increased development potential.

(iii) Bloor Street West

Post 1960 apartment development in the City of Toronto has largely been concentrated in Parkdale, with little activity in the remainder of the area because of

(a) A high incidence of deterioration.

(b) The concentration of ethnic immigrant groups not associated with apartment living.

(c) The lack of well defined subcentres along the street car lines.

The Subway has already sparked proposals to create large apartment concentrations particularly in the westerly portion of the area. Two of these are currently being developed (High Park- Pacific Avenue and the Dovercourt-Bloor complexes).

Present zoning commitments are estimated at about 6,000 units. It is anticipated that more sites will be designated (about 9,000 units in currently known proposals) to meet the increased development potential of the area, and to provide an added impetus for urban renewal in the blighted area.

(iv) York - Weston

This is basically an area of modest housing and relatively high occupancy levels associated with a large immigrant population, but showing little evidence of extensive property deterioration. Despite a fairly high level of public transportation along Eglinton and St. Clair Avenues, the central portion of York Township has not played a dominant role in recent apartment construction, and most of the apartments in the area are associated with occupancies which are above average for the inner urban area and which reflect relative isolation of the area and the availability of industrial employment. The two main areas of activity, are in the area of Jane Street and Eglinton Avenue (involving up to the present vacant land), and in Weston which historically has been one of the more dominant subcentres in the area.

It is expected that the Bloor subway will create more north-south movement within the area, but major transportation improvements are programmed some time in the future. In both York

Township and Weston, actual zoning commitments are still at a relatively low level (3,000 units), and it will be necessary to maintain a balance between immediate development programmes and longer term development potential for apartments (about 10,000 units in known proposals).

(v) Lakeshore

There are about 2,000 apartment units quite widely scattered through New Toronto and Long Branch, and although large concentrations have developed at Mimico-Lakeshore (2,400 units) and Berry Road (2,300 units), there is no well-defined focal point to which apartment development has been related. The incidence of a significant number of low rise, moderate-rental apartments in the southerly part of the area would appear to be related to the availability of industrial employment opportunities.

The impetus for new development will be provided by the lakeshore commuter rail service, although there are no areas yet defined for future apartment development, and the problems of redevelopment will require further study in relation to possible urban renewal activity.

The attraction of the waterfront for apartments will also be felt to the west in Lakeview and Port Credit which are the obvious focal points for more intensive development.

(vi) North Bathurst - Yonge

The marked alignment of apartments northerly along Bathurst Street would appear to reflect

(a) A prior commitment of the Yonge Street corridor to low-density development in the immediate postwar years.

(b) The availability of vacant land along a line of expansion which in the established urban area was already associated with apartments and appears to be associated with an ethnic (Jewish) grouping which is more closely identified with apartment living than other groups.

(c) A reasonably strong orientation to the Central Area by arterial roads despite the absence of rapid transit.

These associations help to explain the incidence of lower unit occupancies in many apartments compared to suburban averages, although occupancy levels tend to increase with distance from the Central Area.

Presumably, it is the success of apartments along this corridor which has led to further large zoning commitments north of Finch Avenue, with several large 13-18 storey buildings nearing completion. Zoning commitments contain a future unit potential of 8,000 units over the whole area and consideration must be given to implications of the Yonge Street subway extension on major redevelopment schemes, and at a later date the Spadina rapid transit line particularly in the vicinity of Yorkdale.

(vii) Downsview

Despite the present lack of a strong orientation to the Central Area and a comparatively low level of public transportation, the Downsview area has been identified with a considerable amount of apartment development reflecting

(a) The availability of vacant land, and particularly the identification of arterial road frontage with apartments.

(b) The availability of industrial employment which, in contrast to the Bathurst-Yonge area, tends to be associated with more moderate to low-rental units, including limited-dividend apartments.

For some time in the future, this area will continue to rely on Highway 401 as the main link with other parts of Metropolitan Toronto, and an increase in other forms of multi-family housing could be anticipated, particularly in the area north of Sheppard Avenue which contains most of the unit potential from committed zoning (nearly 8,000 units).

(viii) North Humber

This area, comprising north Etobicoke and the northwest part of North York despite being bounded by expressways, is still somewhat isolated from the rest of Metropolitan Toronto and particularly from Downtown. Apartment development is generally in the lower rental range including limited dividend, and has obviously occurred in response to the availability of local industrial employment. A continuation of the current rates of apartment construction is anticipated in the immediate future, with little need for major additions to the present zoning commitment (nearly 3,000 units) to meet anticipated demand.

(ix) Central Etobicoke

There has been a steady increase in the rate of apartment development in central Etobicoke, with some shift in locational emphasis from the earlier Bloor Street alignment to the interchanges on Highways 27 and 401 around the periphery of the postwar single-family area.

The lower unit densities permitted in Etobicoke, and the area's reliance on private transportation, have resulted in higher than average occupancy rates for apartments in the area compared to other similar suburban locations.

Existing zoning commitments (2,600 units) are not adequate to maintain current rates of growth, but it is anticipated that future proposals will be related principally to the Bloor subway terminal (involving redevelopment) and the future Richview Expressway.

(x) Don Valley

The marked alignment of major apartment clusters along the Don Valley, which are particularly significant in the distribution of recent apartment growth, is related to:

(a) The relatively late development of land in the area.

(b) The availability of vacant land and particularly of the large land holdings which are associated with comprehensive development projects.

(c) The strong orientation to Downtown provided by the Parkway, with an additional strong east-west axis along Eglinton Avenue to the subway terminal at Yonge Street.

(d) The prestige nature of many developments in the area, including both industrial parks and major shopping centres.

There are still considerable zoning commitments to be fulfilled in Flemingdon Park, Radio City, and many other sites in the area north of Lawrence Avenue (in total about 13,000 units). The recent emphasis on high-rise construction (15-18 storeys) suggests a prevalence of childless households. Smaller than average unit occupancies have been characteristic of many apartments built in the area since 1960. There is evidence of a growing number of town houses to provide family accommodation, and these may become increasingly important in the future housing stock, particularly north of Sheppard Avenue.

(xi) North Scarborough

This area is defined on the basis of its present lack of apartments and its future potential as one of the few remaining extensive development areas in Metropolitan Toronto. Community plans provide for a high percentage of apartments, but this may reflect changes in housing composition to include a wider range of multi-family housing rather than a highly competitive position for immediate apartment development especially when the development potential of adjacent areas for apartments is taken into consideration. Improved accessibility in the area will be related to the extension of the Don Valley Parkway and the possibility of commuter rail service to Agincourt. Further industrial development in areas adjacent to Highway 401 may induce a greater demand for moderate-rental family apartments and/or town houses.

(xii) Central Scarborough

The main east-west axis of development into Scarborough, particularly for apartments, shifted in the late 1950's from Kingston Road to Eglinton Avenue, and to a lesser extent Lawrence Avenue, both of which provide access to the Don Valley Parkway, and, although some distance away, the Yonge Subway. A steady improvement in the general accessibility of the area and an increase in employment opportunities has been associated with a growing apartment stock which, apart from two major concentrations at Eglinton-Victoria Park and Eglinton-Kennedy, is quite widely scattered at the intersections of the closely spaced network of north-south arterial roads. This area has attracted a large number of limited-dividend apartments. Even in its conventional apartments, unit occupancies tend to be in the higher range found in suburban apartments.

Existing zoning commitments are in the order of 10,000 units, and in several areas involves redevelopment of older loosely developed properties which no longer represent efficient use of land.

This zoning potential would appear adequate to fulfill most of the demand in the area for the next ten years, with the impetus for future development being derived from improved accessibility by virtue of proximity to the Danforth Subway terminal, the operation of a commuter rail service, and, eventually, the extension of the Gardiner Expressway.

(xiii) East Scarborough

It is expected that future development east of the Highland Creek will continue to emphasise single-family dwellings, and that the multi-family demand will be related to town houses rather than to high-rise apartments for some considerable time due to the relative isolation of the area and its consequent inability to compete with areas with a high development potential particularly for apartments.

(xiv) Fringe Municipalities

Outside Metropolitan Toronto, apartment development is becoming a more important element of the new housing stock, particularly in the west where the trend to high-rise construction is already apparent. It is obvious from development trends in Metropolitan Toronto that as more of its house building activity passes into the fringe, the subdivision of vacant land will include more sites for apartments. At the present time, this development should be directed to focal points on the major axes of growth, specifically to Lakeview and Port Credit along Highway 2 and the commuter rail line, Dixie and Cooksville on Highway 5, Thornhill and Richmond Hill on Highway 11, and to Pickering and Ajax on Highway 401.

TABLE 7

PROJECTED DISTRIBUTION OF FUTURE APARTMENT UNITS

Apartment Growth Areas	Average Annual Unit Growth 1959-64	Estimated Annual Unit Growth 1964-66	Projected Annual Unit Growth 1967-71	Estimated Unit Potential 20-25 yrs.
North Humber	315	330	350	6000
Central Etobicoke	635	870	800	12000
Lakeshore	280	80	350	6500
Downsview	600	310	500	12500
York-Weston	290	315	700	12000
Bloor	415	1450	1350	21000
N. Bathurst-Yonge	850	1465	1200	17000
Central Area	2000	3100	2750	55000
Don Valley	1550	2625	1950	25300
Danforth	715	930	1150	23500
Central Scarborough	970	1015	1000	16000
North Scarborough	-	-	300	23500
East Scarborough	-	-	100	9000

B. PROPOSED PLAN FOR APARTMENT DISTRIBUTION

A projected average annual growth rate of 13,500 units has been assigned to the growth areas described above, having regard for significant trends modified where necessary by consideration of locational criteria and by the ability of areas to absorb a particular rate of development. The implications of this assignment for future municipal growth rates are shown in Table 8 below.

TABLE 8

PROJECTED APARTMENT UNIT GROWTH RATES BY MUNICIPALITY
(1967 BOUNDARIES)

Borough (as of Jan. 1967)	M.T.P.B. data 1959-65	C.M.H.C. data 1956-65 10 yr. Average	Average Best 2 yrs.	M.T.P.B. Estimate 1967-71
Toronto	2450	3040	4300(57-58)	4175
York	515	675	1065(57-58)	1150
East York	740	520	1205(59-60)	700
Etobicoke	1265	1350	1960(64-65)	1400
North York	2560	2225	3430(62-63)	3350
Scarborough	1310	900	2040(61-62)	1725
Metro Toronto	8840	8710	10630(58-59)	12500
		1962-1965 data only		
Toronto Twp. - Port Credit		440	560(64-65)	750
Markham-Vaughan		80	125(64-65)	170
Pickering-Ajax		80	155(64-65)	80
Total Fringe Area		600	840(64-65)	1000

Map 1 shows the boundaries of the growth areas; makes a unit assignment for a ten-year period (beginning in 1967); and suggests the general locations where future development should be directed on the basis of zoning commitments or future proposals. An allowance is made for apartments completed since 1965 or currently under construction. The assignment of ten years' growth actually allows for twice as many apartments as are likely to be built in the period during which a policy for current distribution is likely to remain relevant. By relating this growth first to the known areas of zoning commitments, it

becomes possible to form an idea of the amount of new zoning which could reasonably be approved in the immediate future. In the case of major proposals which do not obviously coincide with the generalised locations shown, the plan provides a basis for comparing the individual merits of the proposal and its location with the alternatives available.

The relatively short term objectives implied in this plan do not meet the requirements of long term planning, and particularly the need to provide for stability in the pattern of land use and land use relationship. It was found necessary to stress the short-term objectives because many factors are involved in assessing housing trends, municipal involvement in the development process, and methods of taxation and financing municipal operations. To meet the requirements for long-term planning, however, 10 and 20-year estimates for apartment development in planning districts and municipal sub-districts are indicated in Map 2 where the Official Plan population figures will operate as a guide for district plans prepared by local municipalities.

Major Suburban Development Areas
Potential Commercial-Residential Redevelopment
S pre 1970 (S) post 1970 Known Areas of Major Sewer Improvement Programs
Potential Suburban Shopping Centres
Proposed Urban Renewal Districts
Proposed Urban Renewal Districts (Priority Sectors)
Commuter Rail Stations 1967
Subways
To 1975
After 1975
Expressways
To 1975
After 1975
Future Development Programs and Facilities likely to influence Apartment Location
Plate 7
Apartment Study
Metropolitan Toronto Planning Board October, 1966

CHAPTER 7

DENSITY CONTROL AND SITE STANDARDS

A. ZONING BY-LAWS AND SITE PLANNING

The principal tool of municipal governments in the control of land use is the zoning by-law. In many communities, zoning is used as the effective long-term projection of land use, and, in most communities, it is so regarded by most of the inhabitants. To only a limited extent are official plans considered as the proper and effective tool for indicating future trends and policies although they legally should form the "programme and policy" for the betterment of the community.

A zoning by-law usually prescribes a set of standards for the various types of development permitted within the community, largely on the basis of a single use and single structure on a rectangular parcel of land. Since the standards incorporated in the by-law are specific, they cannot readily be modified to meet such unusual circumstances as odd-shaped lots or complex developments, and for this reason a zoning by-law is considered rigid. This inflexibility is in one way a justification for the zoning process because it ensures that owners and developers can readily be made aware of the standards which apply to each zone or to each type of development permitted by the by-law. The difficulty of adapting standards to include new forms of development, however, has undermined the certainty which makes zoning an acceptable method of control. For instance, some municipalities have adopted the process of passing exempting by-laws which contain special standards for a specific project, and only reference to those by-laws reveals the standards involved.

It has been suggested that such specific projects should be developed to general standards contained in an official plan and be implemented by special by-laws to ensure that they conform to a comprehensive policy and are not judged completely on their individual merits. The possibility of public awareness, although more complicated, is thus none the less continued. This process is now being followed by some local municipalities, having first passed through the individual exception stage to the incorporation of satisfactory comprehensive policies in the local official plan.

Although such modifications of zoning procedure are commonly referred to as "development control", the system is different from that operating in Britain under the same name.

It is also somewhat different from the system in Alberta where it is an interim form of control pending adoption of an official plan and zoning by-law and where it involves interim standards.

The piecemeal application of development control policies and the usefulness of zoning as a control over stable areas under little pressure for redevelopment has led to the overall retention of comprehensive zoning by-laws, even where more advanced land use plans and development policies have been adopted. Since provincial legislation admits only zoning by-laws as a measure of control, it has been found expedient to underzone potential development areas and require an amendment to accommodate any new development, either in accordance with standards already contained in the zoning by-law (as in North York), or with an Official Plan policy which supersedes the existing zoning by-law (as in York Township). At present, the policies employed as a basis for rezoning in the City of Toronto have not been incorporated into the Official Plan, although that document is under review.

The flexibility which is possible under development control policies gives a potential developer greater scope within which to work and yet permits the municipality to require enhanced design and development standards as a condition of the rezoning. The rights of appeal of the general public are maintained in the requirements for public meetings, with various levels of government. The development control procedure may further result in a site plan agreement in which certain conditions of development more stringent than the zoning by-law are specified, and in some instances by including a development agreement in which arrangements are made for payment by the developer towards the cost of services.

These policies have been found to work reasonably well in the Metropolitan Area. Where supplemented by Planning District or area studies, whether or not as part of an official plan, it is felt that they will continue to be a practical and realistic framework on which to evaluate zoning proposals. Area studies cannot reasonably cover a longer period than twenty years, and specific development proposals are unlikely to be sufficiently accurate for periods longer than ten years. Rezoning to accommodate specific projects should, of course, not take place until all design details have been satisfactorily resolved.

B. DENSITY CONTROL

1. Methods of Control

Density is a measure of actual or potential population occupying an acre of land, and is most commonly expressed as persons per acre. This study is concerned with two levels of density applicable to apartments:

(a) Net apartment density, in which the land area is the actual site defining apartment use.

(b) Gross residential density, conceived for population control purposes in the Metropolitan Official Plan. The land area includes all residential and neighbourhood uses, and density is based on total population within the gross residential area.

For zoning by-law purposes, the definable land area is the site, but since population is only a hypothetical figure prior to actual development and occupancy, density is controlled by less direct methods than persons per acre. The following methods are used in the Metropolitan area:

(a) Dwelling Units per Acre (U.P.A.)

This measure is used in Etobicoke and Scarborough, and although not specified in the by-law, has apparently been used in North York as a check on the floor area ratio control. It is suitable for use in such suburban areas and affords reasonable correlation with population density assuming the apartment demand is fairly well defined in terms of unit composition. Although building bulk is not directly controlled, market conditions tend to produce floor area per unit averages which may reasonably be used to compute floor area ratio and other factors to be considered in the total development of a site.

Unit density control can be adopted for different purposes in an area where some degree of competition for apartment development exists between municipalities. For instance, in the absence of building bulk control, it may provide a bonus in terms of room size. On the other hand, since it may also encourage more rooms per unit, a municipality seeking to limit increases in potential school population may resort to more detailed control of unit types.

While "rooms", and particularly "habitable rooms", constitute the real difference between units of various size and

occupancy level, and are used in conjunction with other density criteria in some North American cities, it is not used in any by-law in the Metropolitan Area, largely because of difficulties of definition in zoning by-laws.

(b) Floor Space Index (F.S.I.)

Floor area ratio controls building bulk in relation to site area, and any estimate of population density must be derived from average conditions of observed unit types and occupancy. Most municipalities in the Metropolitan Area use this method of "density" control because it is easy to administer, permits flexibility of design, (subject to any controls on building coverage and building height), and is particularly suitable for use in locations where non-family and generally smaller apartment units are in demand. Although floor space index control is said to encourage minimal standards of accommodation in terms of room sizes, much depends on the marketability of a particular site in relation to the prevailing rental structure and demand for apartments. It would appear that under conditions of high demand for apartments, differences in permissible F.S.I. limits between various municipalities could have a disruptive effect on the normal relationship between rental structure, standards of accommodation, and location within the urban area.

It is important that any measure of density used for by-law purposes adequately reflects the basic relationship between people and environment. As discussed further in Chapter 8, the use of only one measure of by-law density can result in variations in actual site environment. At the present time, Scarborough is the only municipality using a population density guide (180 p.p.a.) in conjunction with unit density control.

2. Density Standards

A simple description of maximum densities contained in zoning by-laws in Metropolitan Toronto is not possible in view of the additional policies introduced in official plans and other adopted policies of the municipalities. For instance, in the City of Toronto the maximum floor area ratio permitted in a residential zone according to the zoning by-law is 2.5 (zone 5). Although a "bonus" system envisages an increase to an F.S.I. of 3.0 for development in this zone, no specific area has yet been formally defined to qualify for bonus consideration of this kind. On the other hand, development has been taking place in Downtown

residential areas at an F.S.I. of 3.5 on the basis of zoning amendments which were granted as exceptions to the present zoning by-law when it first came into force.

In York Township, the zoning by-law permits a maximum F.S.I. of 2.0, whereas a recent development approved and built under the official plan policy exceeded an F.S.I. of 4.0.

Table 9 shows floor space indices under zoning by-laws and variations permitted through municipal policies in the Metropolitan Area.

TABLE 9

APPLICATION OF F.S.I. CONTROL

	Zoning By-law Maximum F.S.I.	Examples of Variations in F.S.I. in Recent Developments
Toronto	2.0	2.4 a
	2.5	3.5 b
York	2.0	4.5 a.b
East York	2.5 a	2.5
Forest Hill	3.5	4.5 b
Leaside	2.0	2.0
Mimico	1.5	2.0 b
Weston	- b	2.5 b
Etobicoke	- c	1.0
North York	1.5	1.5
Scarborough	- c	1.8
Toronto Township	1.5	1.5
Port Credit	1.5	1.5
Richmond Hill	1.25	-

Footnotes: a. additional bonus density
b. special zoning amendment
c. floor space index control not specified

3. Bonus Density Allocations

Three municipalities, East York, York and Toronto, currently use a system of "bonus densities in which increases in maximum by-law densities are permitted subject to certain criteria being met. Each system differs in legislative background and general application. The expressed purpose of the City of Toronto's bonus system is twofold:

(a) To encourage development of a particular type in certain locations.

(b) To encourage better standards of site development in the "bonus areas" through the creation of larger sites which allow comprehensive redevelopment and more open space than minimum by-law standards require.

The policies of both the City of Toronto and East York provide a sliding scale of floor area ratios, and although the City scale operates outside the zoning by-law as a form of development control, the requirements are quite detailed and are applied in a manner typical of by-law procedure.

The York Township bonus system is derived from official plan policy which supersedes the zoning by-law in certain circumstances. Although the actual standards have been criticized for the lack of an upper density limit, the policy offers an opportunity to developers to undertake redevelopment within the framework of the three basic criteria of comprehensiveness, open space, and daylighting, and with a minimum of predetermined control.

The differences which exist in the two types of bonus system prompt the following observations on future use of such policies:

(a) Bonuses offered as an incentive to improve standards of site development such as landscaped open space, daylighting, or parking, may be somewhat misdirected when it is the standards themselves which are basically outdated. Other reasons for bonuses, such as method of heating or garbage collection are questionable as reasons for higher density allocation.

(b) Justifiable increases in outdated by-law density limits could be regarded as bonuses under a system of "development control" which recognizes the need for flexibility in considering comprehensive rather than lot-by-lot redevelopment.

(c) Bonus density, expressed in one of the two main forms of control (U.P.A. or F.S.I.), could provide a necessary density range in which allowances can be made for the variations which exist in population density when U.P.A. or F.S.I. remains constant.

(d) With regard to the application of bonus density as an incentive to redevelop specific areas, it is considered

that particular attention should be given to areas in need of redevelopment (in terms of property deterioration and obsolescence) which have not proved sufficiently attractive to private developers. It may well be, however, that the practical limits to density in these circumstances would require that other types of incentive or subsidy be made available.

(e) In view of the many reasons for bonuses and their resultant effect on density limits, it will be necessary to identify the conditions under which maximum densities are allowed in the various municipalities.

C. OPEN SPACE STANDARDS

In most of the municipalities in the Metropolitan Area, the requirements of zoning by-laws for landscaped open space are considerably less than the actual provisions in recent apartment projects (see Table 10) even though by-law requirements have been increasing. Most municipalities now specify a requirement rather than relying on controlling the proportion of lot covered by buildings, and it will be seen that 60% to 70% is becoming a frequent requirement through the application of the bonus system and site plan agreements. The result of such requirements is that much greater proportions of parking must be placed underground even if it involves multi-level garages.

The current standards may provide aatisfactory amounts of open space about buildings, although in some instances its effectiveness is diminished by fragmentation of the parcels. Much of this depends, however, on the layout of the specific site and could readily be controlled only through site plan agreement.

Open space expressed as a proportion of total site area is only indirectly related to density and it would appear preferable to relate its requirement more directly to the level and type of population anticipated, that is, in terms of an "open space ratio" $\left(\frac{\text{open space}}{\text{floor area}}\right)$, "minimum open space area per unit", or "open space area per unit type", based on expected occupancy characteristics. The first of these would appear preferable and most consistent in terms of present methods of control.

TABLE 10

OPEN SPACE REQUIREMENTS

Municipality	Minimum By-law requirements as % of total site	Actual standards in recent developments
Toronto	50%	70% (Bonus system)
York	25%	66% a
East York	25% b	70% b (Bonus system)
Forest Hill	40% c	50 - 60%
Etobicoke	30%	60 - 70% (Site Plan Agreement)
North York	33% d	60 - 70%
Scarborough	50% e	40 - 60%
Toronto Township	40%	N.K.

Footnotes:

a. York Township Official Plan specifies minimum areas of open space per unit, by type of unit - bachelor and 1 bedroom 100 sq. ft.; 2 bedroom 150 sq. ft.; 3+ bedrooms 200 sq. ft.; but their requirements are not mandatory if at least 60% of site area is provided.

b. Not specified as landscaped open space. The bonus density system operates in direct relationship to decreasing building coverage.

c. Restricted area by-laws.

d. Estimated on the basis of requirement for 200 sq. ft. open space for each 900 sq. ft. floor area.

e. Recent amendment for 50%, was previously 30%.

D. DAYLIGHTING STANDARDS

Two methods of controlling the inter-relationships between buildings on the same or adjacent lots are employed, more typically by specifying setbacks, or to a lesser extent by relating separation to the extent of facing walls, or a modification of this, the use of angular plane controls. Specified setbacks are entirely inadequate and the alternative approach, based on the effects of artificial lighting and the differing

needs of various room types, is much more suited. This method has been thoroughly studied and is widely accepted, although writing adequate provisions into a by-law is difficult and proper application usually involves an expert staff.

The simplest form and the one most widely used by local municipalities is to relate setbacks to the height or length of the building, usually in a 1 to 2 ratio. This has generally proven acceptable for medium-density suburban development although weaknesses do exist because the complex nature of daylighting has been over simplified. For example, a lowering of the absolute standard will occur when two buildings of unequal height are placed in a parallel arrangement which essentially requires a vertical angle of daylighting; that is, the distance separating them will be less than the height of the taller building.

The problem of parallel arrangement of buildings becomes more critical when apartments share the same lot line as single-family dwellings. The standard of daylighting for the houses will diminish when the height of the apartment building is more than twice the depth of the yard of the single-family lot. The problem of separation is frequently further compounded by the actual contrast in building bulk, and this particular arrangement of buildings should be avoided where possible.

This system permits no consideration of the daylighting needs of individual building elevations. Some flexibility should be possible provided the full range of building relationships is taken into account. A blank wall does not require daylight, but its position can affect the daylight and visual outlook of adjacent buildings.

The introduction of greater flexibility into this system implies the need for a form of development control based on a statement of the basic principles involved.

The angular plane method of control is more complicated, and for by-law purposes should be explained graphically. At present, it is used by only three local municipalities, the City of Toronto, Toronto Township, and York Township, where it is an official plan policy. This control complements the flexibility approach to building design contained in floor space index control by employing both vertical and horizontal angles as well as angles to control the inter-relationship between buildings on the same site, or between different parts of the same buildings.

These standards have so far proven satisfactory, and no modification would appear necessary at the present time. Where municipalities do not use the angular plane system, the substantial compliance of projected developments to the standards in force in the City of Toronto has been, and will continue to be used by the Metropolitan Toronto Planning Board as a guide to its acceptability. Should problems arise in future projects, consideration will need to be given to the creation of area-wide standards for development. It is further recognized that all such standards at present do not provide adequate separation between apartment and non-apartment uses, particularly low density residential uses, and where projects of this nature are proposed additional safeguards should be required depending on the specific circumstances.

E. ON-SITE PARKING STANDARDS

Every municipality in Metropolitan Toronto requires at least one parking space to be provided on an apartment site for each unit constructed, and, with the exception of East York, Forest Hill and Port Credit (except in the central redevelopment area), additional spaces are also to be provided, ostensibly for visitor parking, although this is specified in only four instances (see Table 11). The most frequent ratio for visitor parking is one space for each four units, but three communities permit a lower ratio of one for each eight units. In North York and Scarborough, the additional spaces are determined by a sliding scale related to the number of units in the project.

As a complement to larger landscaped open space requirements, it is necessary to provide for most of the parking in underground garages. Although Forest Hill requires only 100% parking, this is usually entirely below ground level. Etobicoke specifies 40% and Scarborough 50% of all parking to be enclosed or underground.

No municipal parking requirements vary with location, availability of transit, income levels, or unit types. The actual "need" for parking spaces has caused much controversy, but its determination would appear to require a far more detailed investigation than is usually, or has yet been, undertaken in car ownership-parking space surveys of existing apartment development. (The 1961 Apartment Survey of the Metropolitan Toronto Planning Board, for example, included many older buildings not subject to current parking controls.)

If it is assumed that residential parking standards are designed to eliminate street parking, there exists the anomolous situation where the City of Toronto, even for the highest density development in the central area, requires more parking than inner-suburban York and East York or suburban North York and Scarborough. This situation exists despite the fact that surveys show a far greater proportion of non-car households in the City, and despite the obvious advantages for non-car households in many city locations which are densely developed and enjoy close proximity to major centres of employment, shopping and entertainment, and are served by the best public transportation system available in the area.

In the 1950's, apartments in the City of Toronto and some other areas were developed with as little as 50% total parking provision. The 1961 Metropolitan Apartment Survey showed that in some areas over 40% and an average of 30% of the most recently built apartments (1954-1960) in the City contained households without cars, and even though less than one parking space was provided for each unit, the available parking spaces were not always fully utilized by tenants.

By comparison, the survey showed that the ratio of cars to households in suburban areas was consistently close to 100% for apartments built in the same period.

More recently a survey conducted for the City Planning Board showed that minimum car ownership in post-1960 development varied between 64% and 97%. A preliminary report concluded that:

(a) Based on typical rentals, the car ownership can be expected to tend to the higher (97%) rather than the lower (64%) figure.

(b) Car ownership figures for apartments in close proximity to the subway were 9% less than those quoted above.

(c) Insofar as it has been possible to confirm it, the requirement of 25% visitor parking appears to be a realistic figure.

It is reasonable to maintain parking standards which anticipate increasing car ownership, thereby avoiding the parking problems which afflict many parts of the Metropolitan Area because insufficient attention was given in the past. It is difficult, however, to forecast the extent to which non-car households in apartments will diminish, and it may be necessary

to consider other factors when determining parking requirements in certain areas.

In the suburbs, the 1961 Metropolitan Apartment Survey clearly established the need to make provision for 100% car ownership. In some areas, particularly Etobicoke, two-car households already increase the demand for parking spaces. It is perhaps relevant that several developments with higher than average rents have provided more than the minimum (legal) parking requirement, and the total parking ratio in these cases is in the range 115% to 130%.

It is apparent that there is still inadequate information available upon which to base any rational reassessment of projected parking demand. Generally, at least one space per unit, with some additional requirement for visitors has appeared to work reasonably well and should be maintained, especially in areas other than the inner urban area where the primary demand for transportation will continue to be automobile-oriented. It is possible that some modification for subway-oriented development could be justified, but until adequate evidence is produced, no change in this respect should be considered.

TABLE 11

ON-SITE PARKING REQUIREMENTS (1)

Municipality	Visitor Parking spaces per 100 units specified (*) or assumed	Total Parking Spaces per 100 units
City of Toronto	25.*	125.
Long Branch	25.	125.
New Toronto	25.	125.
Mimico	25.	125.
Swansea[2]	25.	125.
Forest Hill[2]	-	100.
Weston[2]	25.	125.
Leaside	25.	125.
Etobicoke	25.	125.
York Township[4]	12.5*	112.5
North York[3]	12.5*	112.5
Scarborough[3]	16.5	116.5
Toronto Township	25.*	112.
Port Credit	-	100.
Richmond Hill	25.	125.
East York	-	100.

1) All municipalities require at least 1 space per unit.

2) Individual developments under restricted area by-laws. Parking requirement in Forest Hill has varied from 100% to 130% in recent years.

3) Visitor parking requirements vary according to the number of units in the development. The figures here are for a building containing more than 60 units (North York) and 50 - 99 units (Scarborough decreasing further to 112.5% for buildings over 100 units).

4) Official Plan policy.

CHAPTER 8

EFFECTIVENESS OF DENSITY CONTROL

A. DENSITY CHARACTERISTICS OF RECENT DEVELOPMENT

The following comments on density characteristics are based on a random sample of 119 apartment buildings representing in most cases post-1961 development within the major apartment concentrations in Metropolitan Toronto. These buildings contained 13,365 units or 46% of the total units built between 1961 and 1964. The sample clearly shows wide variations in density characteristics of apartments built under one form of density control applied over an entire municipality without reference to the effect of location on occupancy levels (See Tables 12A and 12B. The following analysis explains these variations and isolates certain common characteristics of density and location within broad sectors of the Metropolitan Area.

1. Downtown Toronto

In 1959, the City of Toronto introduced new density standards which reduced the maximum permissible floor area ratio for residential zones from 3.5 to 2.5. Subsequently, this was increased to an F.S.I. of 3.0 under a bonus system, but no area has yet been formally designated for bonus eligibility. In practice, much of the recent development has taken place by special zoning amendment related to either application of the earlier zoning standard at an F.S.I. of 3.5, or the proposed (not yet officially adopted) downtown zoning for apartments in commercial areas, where under specified conditions an F.S.I. of 3.5 is permitted with further bonuses to a maximum F.S.I. of 4.0.

The bonus density system does not apply to sites of less than 50,000 sq. ft. and is intended to encourage the assembly and development of large sites. Buildings are typically 12 to 20 storeys high with recent development as high as 28 storeys. Landscaped open space averages 50% to 60% of site area, or expressed as a percentage of floor area the open space ratio varies between 13% and 22%. Unit density is generally over 200 units per acre, with up to 80% of all units in bachelor and one-bedroom apartments. Average unit size is 750 sq. ft. (gross floor area) which at an average 1.6 persons per unit provides 450 sq. ft. gross floor area per person. Corresponding population densities range from 250 to 400 persons per acre and average about 350 p.p.a.

Assuming that the advantages of a downtown location will continue to attract predominately non-family households which comprise a large element of the future demand, this area will play a dominant role with regard to future apartment distribution.

2. Inner Urban Area

In those parts of Metropolitan Toronto which were basically developed prior to 1950, (that is, the remainder of the City outside the downtown area, and most of the inner suburbs) current apartment construction usually involves redevelopment at a basic floor space index of 2.0 to 2.5. The exceptions involve the use of vacant land in certain parts of York Township and Leaside and the redevelopment to higher floor area ratios in Forest Hill.

Recent apartment development in Forest Hill is dominated by 11-storey buildings which average 180 units per acre (370 p.p.a.) at an F.S.I. of 4.0. Park Towers Apartments (25 storeys) at St. Clair-Spadina in York Township have 167 u.p.a. (estimated 303 p.p.a.) at an F.S.I. of 4.5, with an open space ratio of 15% which is characteristic of downtown apartments.

Generally, however, densities in the inner urban area are less than 300 p.p.a., varying from 160 to 275 p.p.a. at a basic floor space index of 2.0 to 2.5. Although several buildings are only 6 to 8 storeys high, typical development is 10 to 12 storeys with a few examples of 20 storey buildings which are, apparently, becoming more common. Within this wide range of density characteristics, there are some developments having an open space ratio of less than 20%. With the trend towards greater height and more emphasis in municipal by-laws on open space requirements, open space ratios of at least 25% to 30% are more likely to occur in the future.

Development at the top of this range (over 250 p.p.a.) is found in three areas of moderate to low-rental apartments: Parkdale (City of Toronto), Cosburn Avenue (East York), and Lyon Avenue (York). Pre-1961 apartments in Parkdale show even higher densities developed at an F.S.I. of 3.5 (averaging 350 p.p.a. or 175 u.p.a.). The average occupancy rate of 1.85 is high for the predominant unit type (80% bachelor and one-bedroom) resulting in a gross floor area per person of less than 400 sq. ft. The Cosburn and Lyon Avenue apartments are characterized by more two-bedroom units, average occupancy is 2.0 and 3.0 persons per unit and less floor area per person (300 to 375 sq. ft.).

Five areas have average densities in the range of 200 to 230 p.p.a. In the City of Toronto, the convenience of the subway to the Eglinton and Annex areas is reflected in the predominance of bachelor and one-bedroom units (70 to 80%), with an average suite size of about 700 sq. ft. or 425 sq. ft. per person. (The Annex also contains pre-1961 apartments at an F.S.I. of 3.5 and more than 200 units per acre) Density characteristics are similar in the St. Clair-Bathurst area, but in the other two areas, Weston and Jane-Woolner, where one and two-bedroom units are dominant (90%), increases in average occupancy (2.0 to 3.0 p.p.u.) and unit sizes (850 to 1,000 sq. ft.) produce a lower unit density (80 to 100 u.p.a.). The lower rental structure of the Jane-Woolner development is reflected in a lower floor area per person ratio of about 375 sq. ft.

In the Mimico, Leaside (Thorncliffe Park) and Deer Park (Avenue Road - St. Clair) areas average densities are less than 200 persons per acre. Apartments close to the subway in Deer Park are predominantly bachelor and one-bedroom (67%) with an average occupancy of 1.5 persons per unit. These are generally high-rental apartments, however, and contain an average gross floor area of over 900 sq. ft. per unit or 650 sq. ft. per person. Development in Mimico and Thorncliffe also has average unit sizes over 900 sq. ft.; but with higher occupancy ratios of 2.2 to 2.5 persons per unit, there is a lower unit density (80 u.p.a.) and the floor area per person ratio is in the range of 400 to 425 sq. ft.

Although the apartment developments within the Inner Urban Area have similar F.S.I. standards, the unit and population density characteristics vary considerably throughout the area according to location. Some locations have close affinity with the downtown area. Others have a considerably lower level of accessibility indicating the need to relate density policy to location.

3. Suburban Areas

Almost all apartment development in the suburbs currently takes place on vacant land. Apart from the development in Etobicoke which is subject to relatively low density limits, the sample survey shows fairly consistent density characteristics around 150 p.p.a., 50 to 60 u.p.a., and an F.S.I. of 1.2 to 1.5 or 400-450 sq. ft. gross floor area per person. Apartments have also developed in the western fringe in Toronto Township with the same general density characteristics. The predominant unit type in most suburban areas contains two bedrooms; but compared to the 1961 survey the present sample shows higher proportions

of three-bedroom units in Etobicoke (up from 2% to 17% of all units), North York (4% to 15%) and to a lesser extent Scarborough (1% to 7%).

The most notable change in suburban apartment development since 1960 has been in terms of building height and size. The change from 3 to 4 storey to 6 to 9 storey buildings has now developed into a high-rise trend in which buildings 14 to 20 storeys are transforming the suburban landscape. Although much of this development is planned at the initial stage of land subdivision, and, in some areas (for example, Sheppard-Bathurst), there is a good separation from single-family houses, the scale of such building presents a great contrast to the earlier low-density character of the suburbs. With surface parking, many apartments in North York and Scarborough have open space ratios which are not much higher (25% to 40%) than those in the inner urban area, which represents an open space deficiency most significant in low-rental apartments containing many children. It is therefore obvious that even the lower building coverage resulting from high-rise construction must be accompanied by underground parking if open space ratios are to be improved.

The average density of relatively new apartment areas, such as the West Mall at Bloor, and Dixon Road between Martingrove and Islington in Etobicoke, is between 80 and 90 p.p.a. at the zoned density limits of 29 to 35 u.p.a. The developed floor space index is slightly less than 1.0, producing an average about 1200 sq. ft. of gross floor area per unit or up to 500 sq. ft. of gross floor area per person.

Two other areas sampled in Etobicoke contain apartments in a lower rental range. Berry Road, which was largely developed prior to 1961 at higher densities than have been recently permitted in the Township, has some post-1961 apartments at 44 u.p.a. or 150 p.p.a. The combination of low-rental and high-occupancy (3.5 p.p.u.) is reflected in a floor area per person ratio of less than 350 sq. ft. Limited-dividend apartments at Islington-Rexdale built at the current density limit of 35 u.p.a. show an average occupancy of 3.3 p.p.u. with only 200 sq. ft. of gross floor area per person.

In almost every area sampled in North York, development at an F.S.I. of 1.5 or 50 to 60 u.p.a. was evident. Variations from the average density of approximately 150 p.p.a. appear to occur according to locational advantage, particularly relative

accessibility, in the following ways:

(a) Apartments at Don Mills, Bayview-401, Yonge-York Mills, although developed at an F.S.I. of 1.5 or 50 to 60 u.p.a., were found to have average densities less than 130 p.p.a. Floor area per person ratios of 475 to 500 sq. ft. in these projects suggest moderately high rentals. There have also been several recent developments along Bathurst Street north of Forest Hill which average 70 u.p.a., with one-bedroom units prevailing, and a high floor area per person ratio resulting from the low average occupancy of 2.0 p.p.u.

(b) By contrast, more remote locations such as Bathurst-Finch, Victoria-Park-Lawrence, and Lawrence-Keele contain apartments with the same F.S.I. and U.P.A. characteristics but higher occupancy ratios (2.3 to 2.7 p.p.u.), producing densities at 140 to 160 p.p.a.

(c) The survey of limited-dividend (low-rental) apartments at Jane-Wilson and Weston Road (south of Finch) shows that high occupancy ratios, over 3.0 p.p.u. will result in high population densities unless unit density is reduced. Similar occupancy characteristics are also found in apartments at York Mills-Parkwoods Drive, although the average floor area per person ratio does not fall as much below the average as in the limited-dividend developments.

In Scarborough, apartments generally conform to the average density characteristics for similar suburban locations which are not oriented towards the Downtown core. The unit density limit of 60 u.p.a. (140 to 160 p.p.a.) is found in most areas at an F.S.I. of about 1.5 or 400 to 450 sq. ft. gross floor area per person, with an average occupancy 2.4 to 2.6 p.p.u. Higher densities (170 to 190 p.p.a.) are found in limited-dividend apartments where floor area per person ratios fall to around 350 sq. ft.

4. Conclusions

Although nearly every municipality has more than one density category for apartment development, very little is currently taking place on land zoned for densities lower than the maximum permitted by the municipality in any location.

It is largely with respect to this widespread emphasis on maximum density that the difference in density policies between Etobicoke and the other suburban and fringe municipalities becomes evident. Although a density of 60 u.p.a. and an F.S.I. of 1.5 represents a reasonable density for some suburban locations, it would appear that the 35 u.p.a. (F.S.I. of 1.0) in Etobicoke is more appropriate as a general density standard, particularly with regard to the assimilation of large high-rise buildings into a low-density neighbourhood.

For example, the following density characteristics would result from 16 storey development on a four acre site:

	Density of 35 u.p.a.	Density of 60 u.p.a.
Floor Space Index	1.0	1.5
Total Units	140	240
Surface parking spaces (50% total)	85 at 125% ratio	135 at 112½% ratio (150 at 125% ratio)
Open Space % site area	75%	65%
Open Space ratio - (% gross floor area)	75%	42%
Open Space - sq. ft. per unit	940 sq. ft.	460 sq. ft.

Although open space as a percentage of site area may be increased in the higher density example to the 75% level by reducing the percentage of surface parking from 50% to 28% (or 25% at the 125% ratio), the open space ratio (of 50%) will remain significantly lower.

Pressures to increase density limits can also be expected as a result of a growing awareness of redevelopment potential in the suburbs, and will require very careful consideration with regard to the effect of density policy on relative rates of growth in redevelopment areas in the central parts of Metropolitan Toronto

TABLE 12A

DENSITY CHARACTERISTICS OF RECENT APARTMENT DEVELOPMENT (CITY AND INNER URBAN AREA)

Sample Area	Persons per Acre	Floor Space Index	Units per Acre	Persons per Unit	% Unit Types			
					Bachelor	One Bedroom	Two Bedroom	Three+ Bedroom
TORONTO								
Downtown - w. of Jarvis	350	4.0	220	1.6	16.1	56.4	25.6	0.8
Downtown - e. of Jarvis	320	3.5	200	1.6	13.7	66.1	20.2	-
Parkdale	250	2.4	130	1.9	32.6	47.2	20.2	-
Annex	220	2.1	130	1.7	35.8	45.0	19.2	0.6
Deer Park	155	2.4	100	1.5	15.2	52.1	26.5	6.2
Eglinton-Yonge	205	2.1	120	1.7	24.8	45.5	29.7	-
FOREST HILL								
Spadina-Lonsdale	260	2.5	130	2.0	-	58.8	41.2	-
Bathurst-Eglinton	(370	4.0	180	2.1	2.6	35.0	50.0	12.4
	(240	2.6	120	2.0	4.4	60.0	33.6	-
YORK								
Bathurst-St. Clair	(300	4.5	170	1.8	41.0	42.0	17.0	-
	(205	2.0	120	1.7	25.0	50.0	25.0	-
Lyon-Roselawn	315	2.0	105	3.0	3.0	38.0	33.0	26.0
Jane-Woolner	220	2.0	80	2.7	2.0	35.0	56.5	6.5
WESTON	200	2.0	100	2.0	9.7	60.8	29.2	0.3
MIMICO	170	1.5	70	2.4	2.7	40.7	56.6	-
EAST YORK								
Cosburn Ave.	250	2.2	125	2.0	9.6	59.6	30.3	0.5
Dawes Road	170	1.7	57	2.9	-	15.0	55.0	30.0
LEASIDE								
Thorncliffe	(150	1.5	66	2.2	-	-	-	-
	(240	2.0	86	2.5	-	34.0	55.0	11.0

TABLE 12B

DENSITY CHARACTERISTICS OF RECENT APARTMENT DEVELOPMENT (SUBURBAN)

Sample Area	Persons per Acre	Floor Space Index	Units per Acre	Persons per Unit	% Unit Types			
					Bachelor	One Bedroom	Two Bedroom	Three+ Bedroom
ETOBICOKE								
Berry Road	150	1.2	44	3.4	-	22.5	60.7	17.0
West Mall	75	0.9	29	2.6	-	26.4	54.5	19.1
Dixon Road	(65	0.7	29	2.2	-	44.0	56.0	-
	(95	0.9	35	2.7	-	26.2	62.3	11.5
Rexdale	*115	0.5	35	3.3	-	43.3	33.5	23.2
NORTH YORK								
Jane-Wilson-Keele	*(200	1.3	60	3.4	-	27.8	35.4	36.8
	(160	1.5	66	2.3	-	54.3	36.2	9.5
Yonge-401	(120	1.5	60	2.0	0.4	29.3	55.7	14.6
	(85	0.8	34	2.4	-	-	-	-
Bayview-401	125	1.4	52	2.4	-	25.8	44.5	29.7
Keele-Lawrence	160	1.4	58	2.7	-	28.5	63.5	7.9
Bathurst - s. 401	140	1.5	68	2.0	3.8	56.9	37.8	1.5
Bathurst - n. 401	140	1.5	62	2.3	2.1	33.3	49.0	16.5
Bathurst-Finch	150	1.4	58	2.6	-	24.6	65.6	9.8
Weston Road	*145	0.8	38	3.8	-	5.7	54.2	40.0
Parkwoods Village	165	1.4	50	3.3	-	15.0	60.0	25.0
Victoria Park Ave.	140	1.5	60	2.3	-	44.0	55.3	0.7
Lawrence-Underhill	130	1.5	58	2.2	-	38.0	55.0	7.0
SCARBOROUGH								
Victoria Park Ave.	160	1.6	60	2.6	-	34.5	58.7	6.8
Kennedy-Eglinton	130	1.3	58	2.3	1.6	45.8	48.1	4.5
Midland-Eglinton	*190	1.6	70	2.7	-	31.6	61.2	7.2
Lawrence-McCowan	140	1.4	54	2.5	-	41.3	58.7	-
Lawrence-Markham	*170	1.4	58	3.0	-	34.0	55.0	11.0
St. Clair-Midland	150	1.4	56	2.6	-	24.0	62.0	11.0

* Limited Dividend Project

B. CORRELATION OF DENSITY MEASUREMENTS

1. Density Correlation

Since typical by-law expressions of density are only indirectly related to actual population, and in view of the variations in residential amenity which result, a regression analysis of related density criteria obtained from the sample survey was conducted in order to determine the nature of the various relationships.

(a) Units per Acre

Because of variations in household size, the degree of statistical correlation between persons and units per acre is not high within the large areas covered by most zoning jurisdictions.

A regression line computed from the sample survey in Scarborough (which exercises unit density control) had a coefficient of correlation of only 0.41. The regression indicates that while 60 u.p.a. will theoretically produce 147 p.p.a., the variation in occupancy in developments at this unit density is such that a correct forecast of population (for 95% of cases) could be within a range of 113 to 183 p.p.a. The survey actually shows a range of 118 to 175 p.p.a. at that unit density. In Etobicoke where lower density prevails, the range is a little less extreme with 62 to 86 p.p.a. (at 29 u.p.a.), and 91 to 117 p.p.a. (at 35 u.p.a.)

Although apartment development in the City of Toronto is not subject to direct unit density control, there is a better correlation with population than in suburban apartments because there is less variation in average occupancy. Because there is a considerable range of unit density throughout the City, however, the regression equation is not entirely suitable for estimation purposes. (In particular, an increase in unit density does not produce a corresponding increase in population density, and observed densities will be lower than estimates from the equation.) The observed range of population densities in the sample at 140 u.p.a. is 211 to 266 p.p.a., compared to an equation estimate of 250 p.p.a. On the other hand, at 200 u.p.a. the observed range of 288 to 344 p.p.a. is below the calculated 355 p.p.a.

(b) Rooms per Acre

Using a simplified method of room count, (that is, a bachelor unit equals one room with other units calculated as bedrooms plus one*) a closer statistical correlation in the sample survey was found between rooms and population density than was found for unit density (Figure 6). Although the regression equation indicates that a conversion factor of one person per room (as defined) would be satisfactory for most developments, there are two divergent types of development for which this room-persons relationship is inadequate.

The main reason for divergence of occupancy levels from the average of one person per room is related to use of available room space. For instance, the lower persons per room ratio in high-rental apartments (0.7 to 0.8 persons per room) commonly found in Deer Park, the Annex and Forest Hill apartments would reflect the use of rooms for guest-rooms or dens. In these cases, the equation would overestimate the resident population. Perhaps more significantly, population would be underestimated in low-rental apartments because of a higher degree of shared accommodation resulting in ratios of 1.2 to 1.4 persons per room in such areas as Parkdale, Parkwoods Village, Bergamot and Castlefield apartments.

(c) Floor Space Index

Statistical correlation between floor area and population in the sample survey is slightly higher (coefficient 0.88) than for rooms per acre (0.80) (Figure 7) indicating an average ratio of 430 sq. ft. gross floor area per person. Again, this ratio could reasonably be used for the majority of developments in the Metropolitan Area, but not for the extreme cases represented in the full range of apartment development as shown in the following summary:

(i) At an F.S.I. of 2.00 to 2.24 (equation estimate 200 to 215 p.p.a.)
  (1) Overall City of Toronto: 115 to 256 p.p.a.
  (2) Annex area range: 205 to 245 p.p.a.
  (3) Overall inner suburbs: 184 to 320 p.p.a.

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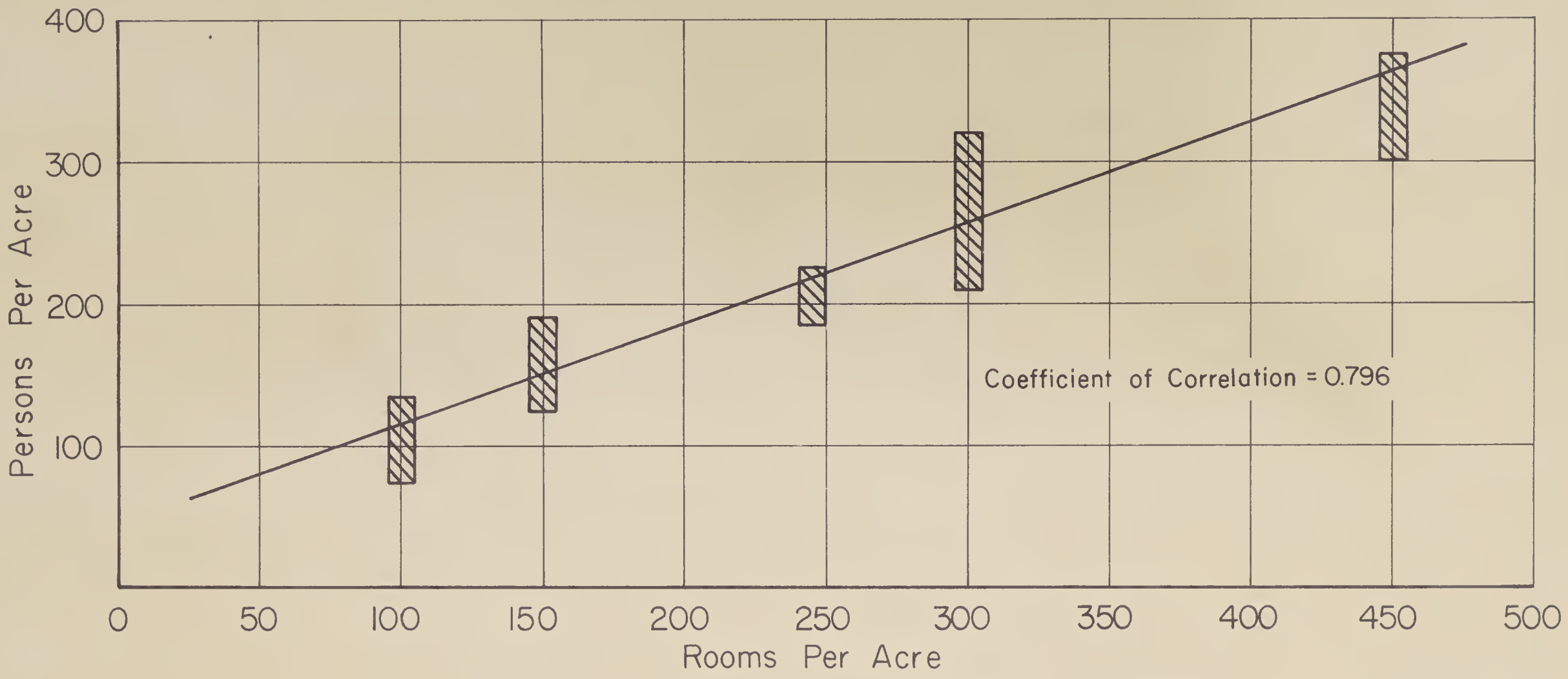
*Living, dining and kitchen areas combine to count one room. All other rooms, except bathroom, hall, storage, count one room each.

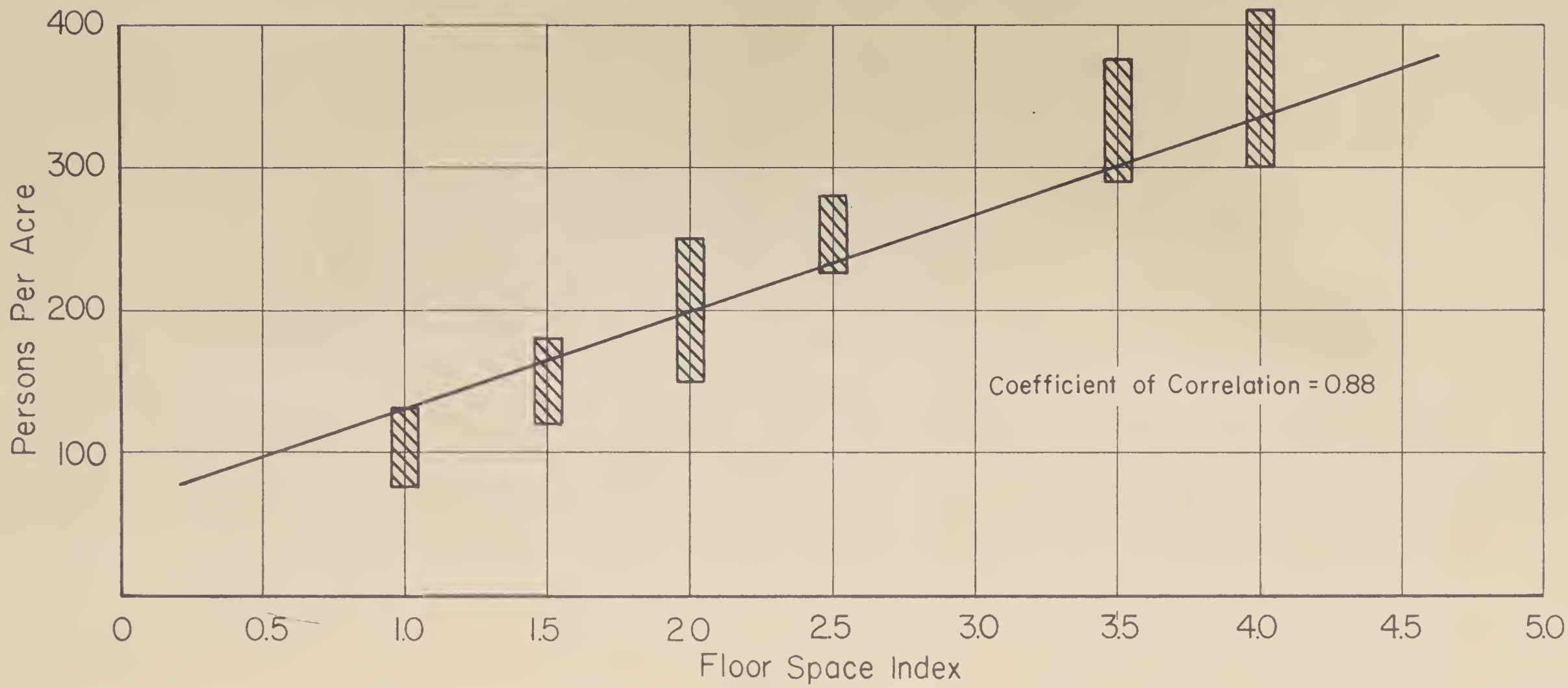
Regression Line for Correlation Between Persons and Rooms Per Acre, and Range of Deviations at Typical Density Groupings.(Sample Survey)

Figure 6



Regression Line for Correlation Between Persons Per Acre and Floor Space Index, and Range of Deviations at Typical Density Groupings. (Sample Survey)

Figure 7



(ii) At an F.S.I. of 1.3 to 1.5 (equation estimate 152 to 166 p.p.a.)
  (1) Overall North York: 125 to 200 p.p.a.
  (2) Scarborough extremes: 125 to 190 p.p.a.

The regression equation for all apartments shows that an increase in the floor space index will result in a more than proportionate increase in floor area per person, due to the tendency to lower occupancy levels in very high buildings. The real extremes of density, however, are also basically related to rental structure. The survey shows that gross floor area per person in low-rental or limited-dividend apartments is as low as 300 sq. ft. In high-rental buildings, on the other hand, the ratio may exceed 600 sq. ft. per person.

(d) Conclusions

It is obvious from the foregoing that neither F.S.I. nor U.P.A. density controls by themselves can be used to determine reliable population density when applied over a wide area. The average apartment unit does not exist in the real world because it is derived from many different combinations of unit types. Room occupancy varies according to the social and economic characteristics of households; and although, in the analysis of existing development, floor area appears to explain the qualitative aspects of occupancy, the use of this factor in a predictive role would have to be based on established relationships of existing development in any one location.

The variations in population density associated with one control criterion are basically related to locational factors (particularly well developed transportation), and are usually in association with a prestige (residential) or amenity (open space) area in the community. Locational advantage is an aspect of marketability of rental accommodation, and is reflected directly in the rental structure of the building. Within one area of density control, a superior location commands higher rentals and is associated with the lower limits of the population density range relative to a location offering a lower level of accessibility and/or residential amenity.

There are two problems arising from the use of one criterion of density, derived from a preconceived idea of development characteristics and particularly on-site amenity:

(i) In low-rental apartments, the trend towards higher than average population densities is likely to result in a reduction in environmental standards. This is particularly significant since the higher occupancy of such buildings is due to large families. It is possible, however, that requirements for higher development standards, particularly underground parking, would discourage private interest in such development and increase the demand for more publicly-subsidized housing.

(ii) Conversely, in high-rental apartments, the same floor area control results in population densities which are often too low to take full advantage of a prime site on which a higher population density would serve the purposes of the community. The Metropolitan interest might best be served by providing controls which will permit higher population densities, particularly since the type of household occupying such prime locations relies less on site environment for social contacts and leisure activities and is therefore less affected by high-density conditions.

To conclude, present by-law control techniques do not appear to be adequate to control variations in population density as may be required to provide for the desirable distribution of population in accordance with the community structure or to provide the best attainable relationship between population and available site amenities.

CHAPTER 9

RECOMMENDED DENSITY POLICY

A. GENERAL CONSIDERATIONS

There are inherent limitations in applying municipal by-law density controls for the purpose of predicting future population. A municipality's use of any one particular method of controlling density may reflect its special interest in population, building bulk, rate of development, or the need for apartments, but will not necessarily have regard for overall metropolitan interests and objectives.

The City of Toronto's strict adherence to floor space index control may result in relatively low population densities or inhibit the development of larger rooms or extra rooms, but would not necessarily result in additional population. Alternatively, in the suburbs, the use of a floor space index control under current conditions of high demand may encourage the development of units for non-family households in competition with central locations. The use of unit density control in Scarborough, while theoretically favoring larger units with more rentable floor area, is apparently subject to policies intended to limit the amount of family accommodation (and more specifically school population). The need for such policies is less obvious in Etobicoke due to the lower unit density and the generally higher rental structure of its apartment development, particularly in the central part of the Township.

The need for simplicity of direction and interpretation of zoning policy is important in a comprehensive zoning by-law, but since current practice is to permit rezoning only by site plan agreement, all related aspects of density could be examined and applied in relation to a statement of density policy which would properly be contained in the municipality's official plan.

The Metropolitan Toronto Planning Board's Interim Density Policy is based primarily on floor space index control as applied by most area municipalities. Unit density control, however, was introduced into that policy as an alternative to floor space index with respect to development in the inner suburbs. There has been a notable preference for the alternative which permits apartment development at 140 u.p.a., typically producing an F.S.I. of approximately 3.0 rather than the limit of 2.5 specified in the policy's density schedule.

The interest in unit density as compared to F.S.I. controls, is obviously based on the prospect of obtaining an increase in the amount and quality of rentable floor area. Since none of the projects processed under the Interim Density Policy has yet been completed, a study of existing apartments in similar locations was undertaken to ascertain the effects of increased floor space on population characteristics. Obviously a large increase in floor area should produce higher population density, although, as noted earlier, the increase in populationdensity is likely to be less than proportionate to the increase in floor area. Several examples of high-rise, high bulk buildings were noted in which gross floor area per unit increased not only as a result of space required for multiple elevator systems, but also because average room size increased. Even more surprisingly, the number of rooms per unit increased without significant increases in unit occupancy ratios, as shown in the following comparisons:

	Storeys	F.S.I.	Sq.Ft. Per Unit	% 2-3 Bedrooms	Rooms Per Unit	Persons Per Unit
Downtown Toronto						
1. 80 Wellesley	13	2.5	700	-	1.7	1.7
2. 40-50 Alexander	18-28	4.0	770	39%	2.3	1.7
York Township						
1. 310 Tweedsmuir	12	2.0	800	24%	2.0	1.7
2. 400 Walmer	25	4.5	1180	59%	2.7	1.8
Forest Hill						
1. 55 Montclair	6	2.5	830	43%	2.4	2.0
2. 21 Mayfair	11	4.5	1120	66%	2.8	2.1

Three main conclusions are drawn from the operation of the Interim Density Policy:-

(a) In an area like Forest Hill, the substitution of unit density on the basis of established occupancy characteristics is an acceptable method of population density control. The maximum of 140 u.p.a., averaging 1000 sq. ft. per unit, produced an F.S.I. of 3.2, and, at 2.0 persons per unit, a population density of 280 p.p.a. which represents the upper level of the density range for the majority of recent development in the inner urban area which took place generally at a lower F.S.I. Even with 70% of lot area devoted to landscaped open space, however, the open space ratio of 22% of gross floor area in such developments is still quite low and a better justification for the use of the maximum density should be sought in order to

achieve the successful integration of such intensive development into a residential area.

(b) Maximum unit density should not be indiscriminately substituted for F.S.I. control in every part of the inner urban area. Development at 140 u.p.a. resulting in an F.S.I. of 3.2 in York Township west of Jane Street, is likely to produce an unreasonably high density of about 360 p.p.a. for such a location. In this case, location characteristics produce a change in occupancy characteristics to the extent that even a unit density exceeding 110 u.p.a. is questionable since it would probably result in a lowering of environmental standards.

(c) The problem of securing a rational distribution of apartment growth is not likely to be solved unless all municipalities exercise both controls (U.P.A. and F.S.I.) allowed by the Interim Density Policy. For example, an apartment development built at a density of 140 u.p.a. in Forest Hill may be contrasted with a similar development built in the City of Toronto in a prime subway location such as the Eglinton district. In the former case, the building's marketability is enhanced when the floor space is increased as permitted by the Interim Density Policy; but in the latter case, lesser standards of accommodation are produced by the rigid adherence to an F.S.I. control of 2.4. In practice, unit densities will be lower if it is correct to assume a trend towards higher internal space standards, and consequently the development potential of an area, involving undue problems of land assembly at the permitted floor area ratio, may not be realized.

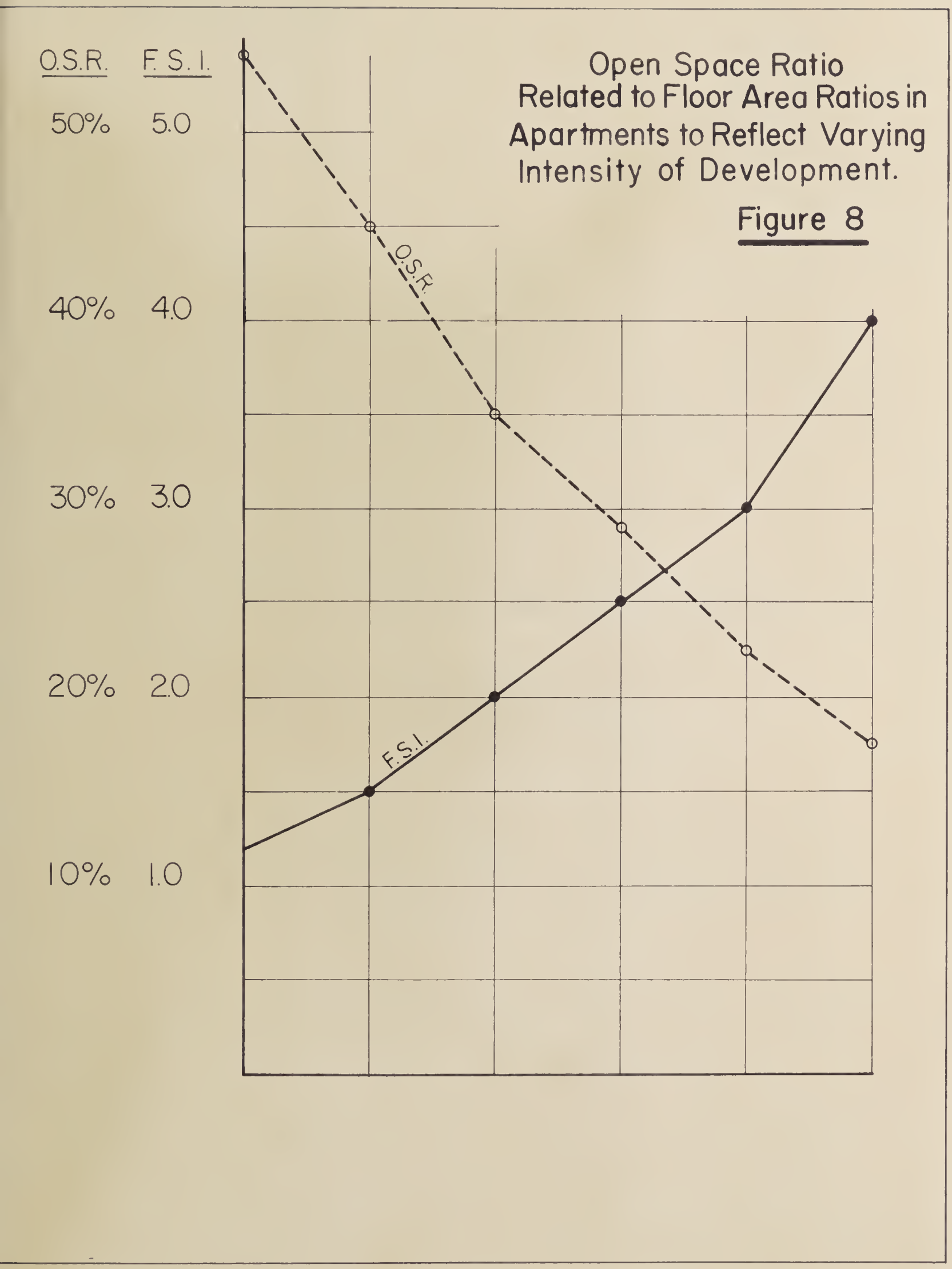
1. Density and Quality of Environment

A recent study undertaken by the Royal Architectural Institute of Canada focuses attention on deficiencies of traditional zoning techniques and standards. The view is taken that the essence of density control is the provision of open space, which is related to population through (room) composition of apartments. This approach has been used in some zoning by-laws and official plans (e.g. the York Township Official Plan "Point 5" policy), and it is also the basis for a new C.M.H.C. density policy to be used in the evaluation of projects for loan purposes. This qualitative approach to density, however, would appear still to require refinement to reflect variations in occupancy of similar unit types in different locations. Because open space requirements increase with the number of rooms per unit, the system may also be subject to the same pressure for smaller units as is the F.S.I. control method.

From the point of view of ease of application, it would appear preferable to employ a relationship between floor area (or building bulk) and open space as shown for ranges of density in the Metropolitan Area in Figure 8, with the open space ratios representing, on the basis of the sample survey, a reasonably high standard of development with 60% to 70% of the site area devoted to open space.

2. Intensity of Land Use

The system of rating locations in terms of intensity of development used by the U.S. Federal Housing Administration, which forms the basis of density control in some zoning by-laws (e.g. New York City) attempts to correlate the several factors involved in density, units, floor space index, open space and even parking requirements, and relates them to suitability of locations and impact on the local environment. This technique, although extremely complicated, has obvious potential for density control on a metropolitan basis, but any comparison of density limits in Toronto and other North American cities should be undertaken with caution. For example, the maximum floor space index of 12.0, which is permitted in New York, is limited to high value areas in the vicinity of Central Park. Most comprehensive apartment developments in Manhattan take place at an F.S.I. of 2.5 to 3.5 and are generally subsidized through written-down land costs. In addition, all zoning for apartments at an F.S.I. of 2.0 or more throughout the New York City Boroughs is related to a subway location. Similarly, in Montreal, apartments built at an F.S.I. of 12.0 are confined to the south side of Mount Royal adjacent to the Downtown area. For example, apartments along Sherbrooke Street are competing with, and themselves contain, commercial uses. They represent piecemeal development of relatively small sites, and could not be repeated satisfactorily over a wide area due to their high building coverage (e.g. a 16-storey building with 75% site coverage). In fact, current revisions to zoning by-laws in Montreal will effect a considerable reduction in floor area ratios with a maximum F.S.I. of 8.0 which is applicable to a few selected locations and requires much more stringent development standards, (e.g. 25% maximum site coverage, and minimum site area of 100,000 square feet).



Open Space Ratio Related to Floor Area Ratios in Apartments to Reflect Varying Intensity of Development.

Figure 8

B. THE DENSITY POLICY

In almost every municipality, the boom in apartment construction provides an opportunity to maintain a rate of building which will produce new assessment to balance rising municipal costs. There will inevitably be an element of competition involved in locally-conceived density policies and zoning procedures, particularly from the point of view of timing of development, but these policies and procedures should reflect relative merits of location rather than simply whether an area may be suitable for apartments. From a land use point of view, the continuous trend to increased densities arising from competitive policies is likely to be self-defeating. The competitiveness of apartment projects built at high density in parts of Forest Hill and York Township is due to a very favourable relationship between land cost and permitted density when compared, for example, to apartment development in the City of Toronto.

For these reasons, it is proposed that the metropolitan density policy be directly related to:

(a) A basic measure of persons per acre. Maximum control densities are recommended for the three zones designated on Map 3 as follows:

Downtown Area - 380 persons per acre
Inner Urban Area- 270 persons per acre
Suburban Area - 160 persons per acre

These densities are based on current development experience which is considered to be a reasonable reflection of present community attitudes towards environmental standards, particularly the integration into the community of large buildings with their associated activities and movements of people.

Other density criteria(units per acre, floor space index, and open space ratio standards) are given in Table 13 in order to facilitate development control by the local municipalities. The ranges of unit density given are based on current experience of the effect of location, and particularly proximity to other intensive land uses, rapid transit facilities, transportation facilities, on occupancy levels in a typical apartment unit. These unit densities are assumed to be maximum density limits and are further associated with ranges in floor space index and open space ratios which are assumed to reflect the normal relationship between population characteristics and intensity of development at different type-locations.

The minimum open space ratio, which will be applied only when maximum density is attained, represents the fairly high standard currently being achieved through the operation of bonus density provisions (about 70% of the total site area). It should be noted that the open space ratios have a direct relationship to the anticipated level of population at each location type in the major density control zones as follows:

Downtown Area - 75-90 sq. ft. per person
Inner Urban Area - about 110 sq. ft. per person
Suburban Area - 170-180 sq. ft. per person

As indicated above, the recommended scale of maximum population densities does not differ substantially from current experience although, in some areas, the related floor space index may be higher. Such increases can be justified on the basis of population levels which should reflect:

(a) The anticipated high level of apartment demand.

(b) The relative merits of location within the urban area, having particular regard for public investment in services, the need for redevelopment, and the high volume of transportation facilities.

(c) The need as well as the ability to absorb such intensities of land use into a particular area.

Definition of Type-locations

The changes in density criteria within any one area are intended to reflect the relative importance of locational criteria so that, generally, the higher unit density or floor space index may be expected to encourage development in specific locations.

The type-locations to which the density criteria relate are defined as follows:

1. Subway-related: applicable to sites within 2000 feet radius from a subway station.

2. Subway-oriented: sites within a 1500 feet radius of the intersection of two major arterial roads at least one of which provides a high level of public transportation to a subway station not more than 1½ miles distant.

3. Other focal points: sites which relate to a focal point on a major arterial road emphasized by such features as an intersection with a minor arterial or collector road, the existence

of other intensive (commercial) land uses, or proximity to a park or other open space which provides an opportunity for the successful integration of apartment buildings into an area.

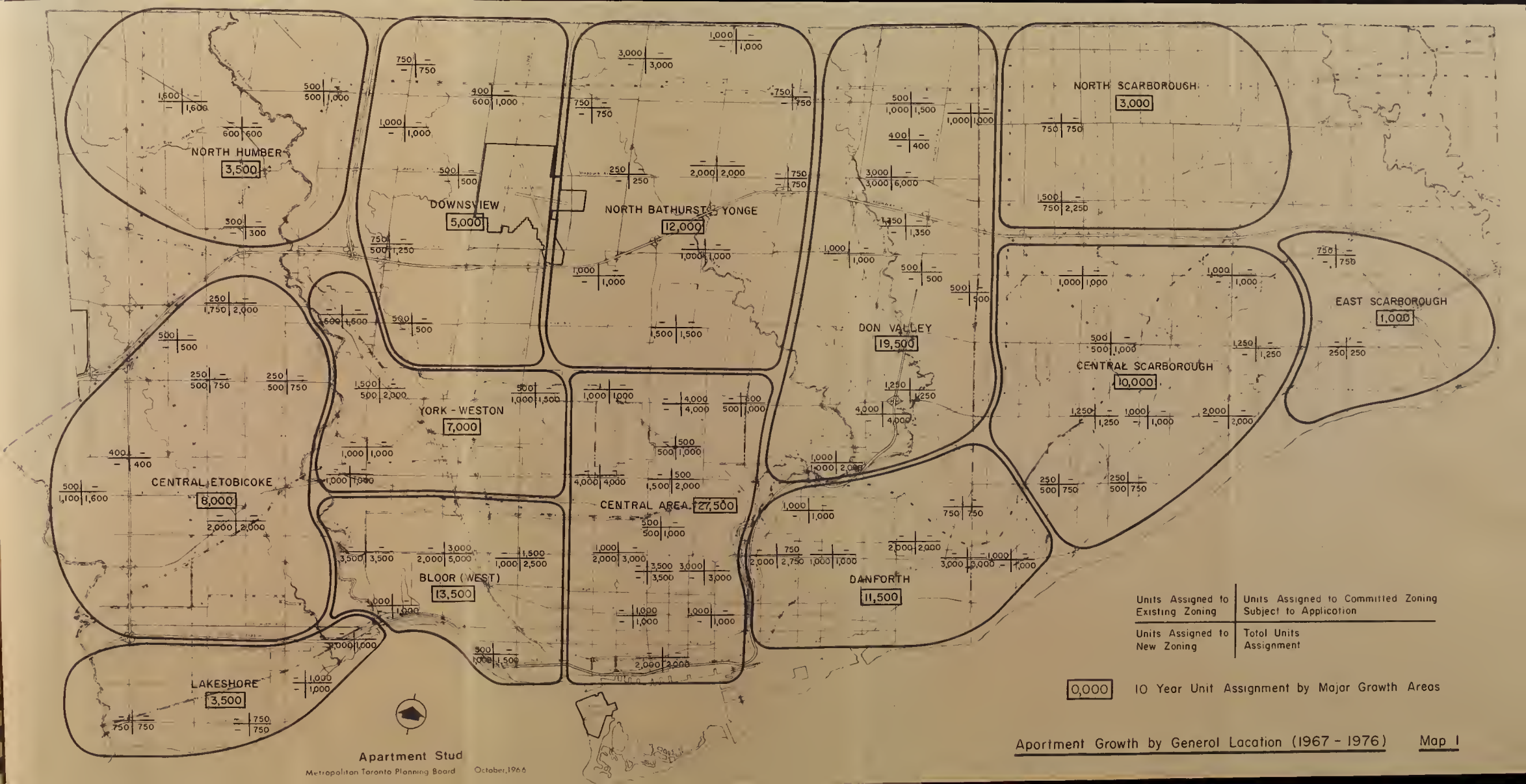
Since in Table 13 variations in density are related to location, and since the intensity criteria for maximum density reflect the fairly high standard of development which is required as apartments assume a more dominant role, there would not appear to be any need to duplicate bonus density schemes at the metropolitan level.

TABLE 13

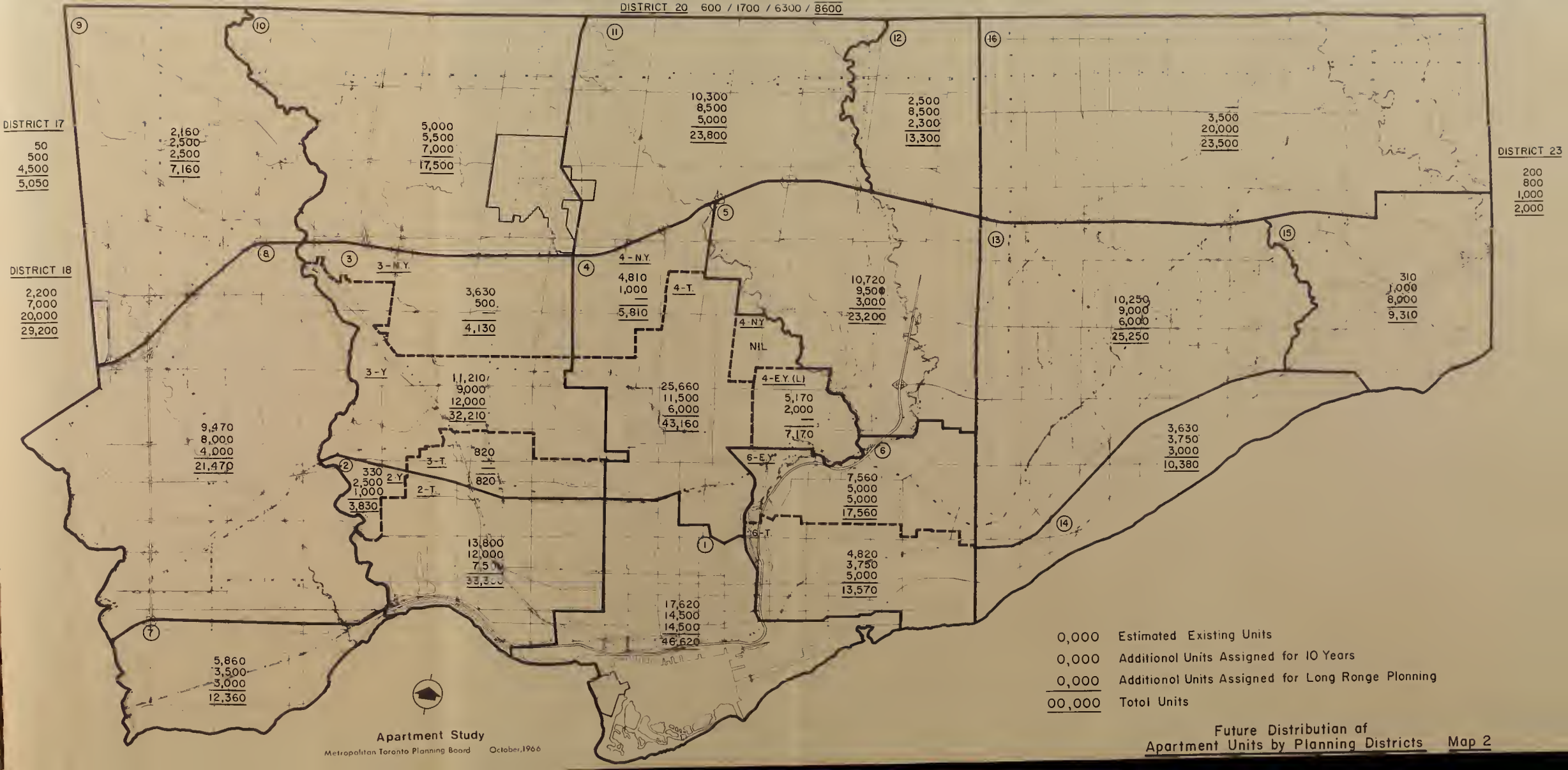
PROPOSED CONTROL DENSITIES AND RELATED INTENSITY CRITERIA FOR APARTMENTS IN THE METROPOLITAN TORONTO PLANNING AREA.

Density Control Zone (Map 3)	Type-Location or Zone	Popn. Control Density P.P.A.	Max. Unit Density U.P.A.	Max. F.S.I.	Min. O.S.R. %
DOWNTOWN	*i. commercial zone (C1)				
	ii. commercial zone residential (C1A, C1S)	380	240	4.00	17
	iii. residential zone	320	190	3.25	21
INNER URBAN CENTRAL	i. subway related	270	150	2.75	25
	ii. subway oriented	270	135	2.50	29
	iii. urban focal point	270	125	2.25	32
GENERAL	i. subway related	270	135	2.50	29
	ii. subway oriented	270	110	2.25	32
	iii. urban focal point	270	100	2.00	35
SUBURBAN	i. subway related	240	110	2.25	32
	ii. inner suburban	160	70	1.50	45
	iii. intermediate suburban	160	60	1.50	45
	iv. outer suburban	160	50	1.25	50

* In predominantly commercial zones in the City of Toronto along Bloor Street, and in the main Downtown area south of College St., current residential densities are not competitive with the higher commercial floor area ratios permitted up to an F.S.I. of 12.0. Residential uses are permitted, however, in some commercial zones where no separate floor space index is specified. Legal interpretation of the by-law has been made to the effect that up to 50% of the gross floor area (say at an F.S.I. of 5.9) could be used for apartment purposes. This type of development is outside the normal context of residential development standards and therefore no density control measure is proposed for commercial type-locations (C1 zone) in the Downtown Area.



Aportment Growth by Generol Locotion (1967 - 1976) Map 1


DISTRICT 20 600 / 1700 / 6300 / 8600
DISTRICT 17
50
500
4,500
5,050
DISTRICT 18
2,200
7,000
20,000
29,200
DISTRICT 23
200
800
1,000
2,000
2,160
2,500
2,500
7,160
5,000
5,500
7,000
17,500
10,300
8,500
5,000
23,800
2,500
8,500
2,300
13,300
3,500
20,000
23,500
3-N.Y.
3,630
500
4,130
4-N.Y.
4,810
1,000
5,810
4-T.
10,720
9,500
3,000
23,200
4-N.Y.
NIL
10,250
9,000
6,000
25,250
310
1,000
8,000
9,310
3-Y
11,210
9,000
12,000
32,210
25,660
11,500
6,000
43,160
4-E.Y.(L)
5,170
2,000
7,170
9,470
8,000
4,000
21,470
3,630
3,750
3,000
10,380
3-T.
820
820
330
2,500
1,000
3,830
2-Y.
2-T.
6-E.Y.
7,560
5,000
5,000
17,560
6-T.
13,800
12,000
7,5
33,3
4,820
3,750
5,000
13,570
17,620
14,500
14,500
46,620
5,860
3,500
3,000
12,360
0,000 Estimated Existing Units
0,000 Additionol Units Assigned for 10 Years
0,000 Additionol Units Assigned for Long Ronge Plonning
00,000 Totol Units
Apartment Study
Metropolitan Toronto Planning Board October, 1966
Future Distributian af
Apartment Units by Planning Districts Map 2

Apartment Study

Metropolitan Toronto Planning Board

Density Control Zones

(To be read in conjunction with Table 13) Map 3

CHAPTER 10

CONCLUSIONS AND SUMMARY OF RECOMMENDATIONS

The provisions of the proposed Metropolitan Official Plan for density and distribution of population by Planning Districts are based on the need for a wide variety of housing types and on current trends of construction. In this report, particular regard is given to a forecast of apartment needs for a period of over 20 years with due consideration for the recent upswing in apartment construction and starts. These estimates indicate that the overall population and density provisions of the Metropolitan Official Plan will accommodate the growth of required housing types over this period.

With respect to the distribution of the population by Planning District, the projections of apartment construction by redevelopment and development of vacant land, having due regard for the observed trends and directions of growth and due consideration for desirable apartment sites, indicate that the population provisions of the Metropolitan Official Plan are reasonable, and no change can be justified at the present time. Accordingly, the recommendations which are presented as a result of this Study are designed to provide a means by which the population density and distribution proposals of the Metropolitan Official Plan can be implemented by the local municipalities and the Metropolitan Planning Board. These recommendations call for the Board to be more directly involved in the distribution of population within the Planning Districts, which matter was previously considered to be a question of local jurisdiction. The reasons for this more positive involvement have been fully described in the Introduction to this Study (Chapter 1).

In this report, it is proposed that the Metropolitan Planning Board be concerned with overall apartment distribution both with respect to its effect upon the overall population proposals of the Metropolitan Official Plan, and with respect to the rational timing of such development. In order to control timing effectively, it will be necessary for the Board to continue to be involved with the density of apartment development.

A. OVERALL APARTMENT DISTRIBUTION

The following maps and policies are proposed to serve as a guide to the Board and local municipalities in the implementation of the above objectives:

1. Future Distribution of Apartment Units by Planning Districts (Map 2)

This map indicates by Planning Districts and Municipal Sub-districts the number of additional apartments which should be planned for an approximate 25 year period. These figures should be used as a guide in the preparation of District Plans or study plans, and would be used by the Metropolitan Planning Board when examining such plans with respect to their conformity with the Metropolitan Official Plan.

Map 2 also indicates, by the same areas, an estimate of the number of new apartments which can be expected in the next ten years, the distribution of these amounts being related to observed trends in apartment construction by location. While the 25 year figures are required for long-range planning purposes, the 10 year figures, (which are valid for a 5 year planning period only), are provided for the following reasons:

(a) In the development of vacant suburban areas, the 10 year figure will permit an appraisal of the public facilities required to support the development, and may indicate that capital expenditure might be reduced for certain services in view of the forecast population increase attributable to apartments.

(b) In existing urban areas where redevelopment is involved, the 10 year figure should be used in order that excessive amounts of rezoning are not initiated which would result in instability over unnecessarily wide areas.

2. Apartment Growth by General Location (Map 1)

This map estimates the same future apartment growth over the next 10 years as Map 2, but assigns this growth by major growth areas which have been defined by a study of past trends (see Chapter 6). Map 1 further breaks down these figures by general locations to indicate a rational distribution within the major growth areas. As a further planning guide, Map 1 assigns by general location a unit potential of existing or committed zoning and

indicates the required amounts of rezoning in relation to the forecast figures for new apartments.

Map 1 should be used in conjunction with Map 2 for evaluation purposes since it will provide an appreciation of the relative effects of proposals upon one another within the same growth area.

3. Relative Stability of Residential Areas (Plate 8)

Plate 8 is a study plan which is provided as a guide to the Board in its examination of local municipal proposals for apartment development.

It shows:

(a) Those residential areas which are relatively stable.

(b) Apartment concentrations consisting of:

(i) Existing apartment concentrations which may, to varying degrees, be suitable for expansion.

(ii) Apartment locations already proposed in the official plans and zoning by-laws of the local municipalities.

(iii) Apartment locations proposed in various local area studies which are considered to be reasonable.

(c) Undeveloped suburban areas for which detailed plans have not yet been completed and for which specific apartment locations cannot be determined at the present time.

(d) The central area within which apartment development locations can only be determined by the City of Toronto on a detailed project basis.

(e) Urban Renewal Districts within which apartment development can be anticipated, but where location can only be determined in relation to the urban renewal programme.

(f) Major road frontages intentionally excluded from adjacent stable residential areas. Along these road frontages, particularly where marginal commercial development is in need of redevelopment, it is suggested that individual apartment proposals will be considered on their merits with particular regard to the scale of the proposal in relation to adjacent stable residential areas.

The study plan does not indicate numbers of apartments but provides a guide to those locations committed to, or suitable for, apartment development, and, by contrast, those areas which, being relatively stable and containing low-rise buildings, should not be disrupted by haphazard scatteration of high-rise buildings.

The study plan is a working map and is not intended to imply that low-rise apartments, other multi-family housing, or high-rise apartment concentrations should not be developed in locations other than those shown. Apartments and other forms of multi-family housing could be developed in stable residential areas provided the scale of the buildings is in keeping with the general character of these areas.

The study plan provides a guide for the location and direction of the major efforts of the apartment construction industry, and any departures from the pattern shown would require substantial and exhaustive justification in accordance with precise plans and with regard for the criteria provided by this Study. While it must be appreciated that in this rapidly expanding and consolidating Metropolitan Area, high-rise buildings are desirable and must be accepted, reasonable limits to overall apartment demand must be defined and principles established for the successful integration of intensive development into various sectors of the community.

Stable Residential Areas
Existing and Proposed Apartment Concentrations
Residential Areas for which Future Density Pattern has not yet been Determined
Central Area
Urban Renewal Districts
Non-Residential Areas
Apartment Study

Relative Stability of Residential Areas Plate 8

B. DENSITY PROVISIONS

After an area has been established as suitable for apartment development in accordance with the procedures outlined, it will be necessary to determine the appropriate density at which such development may take place.

The density controls proposed by Table 13 and Map 3 are intended to encourage apartment development at suitable densities, having regard for the relative desirability of the various sites and the type of occupancy which can be expected. The standards are designed to maintain a reasonable environment which appears practical at the present time in relation to the economics of private development.

The basic control is a defined net site density in persons per acre designed for application to wide geographic areas as shown on Map 3. These major areas and control figures are as follows:

Downtown Area	-	380 persons per acre
Inner Urban (Central) (General)	-	270 persons per acre
Suburban Area	-	160 persons per acre

Within each of the above areas, different densities in terms of F.S.I. or units per acre are provided for according to type-locations which, since they affect the occupancy characteristics, will maintain the population control figure and provide an incentive for development at the more desirable locations. The type-locations are defined as follows:

1. Subway-related: applicable to sites within 2,000 feet radius from a subway station.

2. Subway-oriented: sites within 1,500 feet radius of the intersection of two major arterial roads at least one of which provides a high level of public transportation to a subway station not more than 1½ miles distant.

3. Other focal points: sites which relate to a focal point on a major arterial road emphasized by such features as an intersection with a minor arterial or collector road, the existence

of other intensive (commercial) land uses, or proximity to a park or other open space which provides an opportunity for the successful integration of apartment buildings into an area.

A maximum floor space index specified in Table 13 for a type-location in a density control zone may be exceeded where the specified maximum density in units per acre is not exceeded and the specified minimum open space ratio is provided. Similarly, the specified maximum density in units per acre may be exceeded where the specified maximum floor space index is not exceeded and the specified minimum open space ratio is provided.

By following the above procedures, there will be less danger of unnecessary disruption of stable residential areas by scatteration of high-rise buildings the development of which has not been justified within the context of extensive and comprehensive plans which provide for such development at an appropriate scale and magnitude and which are capable of realization within a reasonable period of time.

C. SUMMARY OF RECOMMENDATIONS

1. It is recommeded that the proposed controls with respect to distribution and density of apartments as summarized above be used as a guide by the Metropolitan Planning Board when commenting on development proposals with respect to the conformity of such proposals to the Metropolitan Official Plan. (Local municipalities will still by required to prepare District, Secondary, Sector or Study Plans in relation to any proposal to establish:

   (a) Precise limits of redevelopment areas.

   (b) That required services and supporting facilities are available.

   (c) The amount of redevelopment proposed.)

2. Proposals initiated prior to the adoption of this report should continue to be examined by the Board in relation to the Interim Density Policy.

3. It is recommeded that consideration be given to incorporation in the Metropolitan Official Plan of the principal elements of the proposals contained in this report.

4. While the setback and daylighting provisions, presently applied throughout the Metropolitan area are generally satisfactory, it is recommended that special consideration be given by the Board to setback requirements at permanent boundaries between high-rise apartment development and areas of lower density. (By-law provisions at present are satisfactory with respect to relationships between adjacent apartments, but do not provide for the increased setbacks required when apartments adjoin lower-density areas.)

5. Since all available evidence confirms that a parking provision for apartments of 125% is reasonable throughout the Metropolitan Area and particularly in the suburban area with its higher incidence of car ownership, it is recommended that this measure be used by the Board in its evaluation of development proposals. It is also recommended that further consideration be given to a reduction of parking requirements in the central area and particularly in subway locations.

A P P E N D I X A

DEMAND PROJECTION METHODS
AND
SUPPLEMENTARY DATA

Methods

The steps taken to arrive at Table 5 in Chapter 3 and Table B in the Appendix were as follows:-

1. Projection of distributions of total households (apartments and other types) by number of persons per household for a M.T.P.A. population of 3,660,000 (to be reached in about 25 years). The projections together with facts and assumptions used are given in Appendix Table A .

2. Average number of persons per household for total households obtained from the weighting given by #1, (3.38). (See Appendix Table A footnote).

3. Demolitions 1961-ca.1990 estimated from (a) recent annual trends, (b) theoretical considerations of the life expectancy of the existing housing stock of various age groups, (c) known or expected public and private redevelopment.

4. Projection of total number of households ca.1990 in Table 5 of Chapter 3 calculated by use of factor from #2 as follows:

$$\frac{3,550,000^{*}}{3.38} - 410,000^{**} = 1,050,000 - 410,000 = 640,000$$

* 3,660,000 - 3% for Institutional Population
** 1961 D.U.'s remaining ca. 1990.

5. Projection of apartment building 1961-ca.1990 assumed to continue at about 50% of total residential construction, which was the average over the period 1958 to 1965, (See Table 6 in Chapter 3). This is a very difficult figure to forecast as it is dependent upon so many estimates and judgments concerning the future population structure; income levels; household and family types; social habits; relative availability and cost of houses and apartments; the amount and comparative attraction of other housing types such as row houses and maisonettes; future public housing program and the residential types built in public housing. These many factors have been studied at some length but no decisive reasons have emerged for projecting any different proportion of new construction for apartments from that which has obtained in recent years.

6. Distribution of total households by number of persons per unit, (from Appendix Table A) between apartments and other residential types.

For this exercise the following factors were used:-

(a) 1961 proportions of apartments to toal units by number of persons per unit obtained from unpublished Census material.

(b) Net additional 315,000 apartment units (See Table 5 in Chapter 3) distributed among household sizes in approximate proportions given in (a) factored up to produce 315,000 and modified by expected percentage distribution changes in persons per unit.

7. Conversion of apartments by persons per unit into apartments by number of bedrooms. This was calculated from the following criteria:-

(a) 1958 and 1961 distributions by type of unit and average number of persons per unit type (See Appendix Table B).

(b) Logical probabilities of apartment sizes required to serve household sizes for different numbers of persons.

TABLE A

TOTAL HOUSEHOLDS BY NUMBER OF PERSONS

IN CENSUS METRO TORONTO 1941 - ca.1990

Persons Per H'Hold	% Distribution (1) 1941	1951	1961	ca.1990	ca.1990 H'Holds and Pop. No. H'Holds.	Population
1	3.7	4.9	8.4	14.0	147,000	147,000
2	19.0	21.2	24.1	26.0	273,000	546,000
3	21.7	21.1	19.2	16.0	168,000	504,000
4	20.5	20.9	20.0	19.0	199,500	798,000
5	14.1	13.1	13.0	12.5	131,300	656,500
6	8.9	7.8	7.0	7.0	73,500	441,000
7	5.2	4.4	3.7	3.0	31,500	220,500
8	2.7	2.6	2.0	1.4	14,700	117,600
9	1.7	1.5	1.2	0.5	5,200	46,800
10+	2.5	2.5	1.4	0.6	6,300	72,600
	100.0	100.0	100.0	100.0	1,050,000	3,550,000 **

(1) 1941 to 1961 from Census of Canada. For ca.1990 see "Facts and Assumptions" below.
ca.1990 Average No. persons per D.U. calculated from the estimated percent distribution = 3.38*

* For comparison with trend for Metro Census area:-

1941	4.1
1951	4.0
1956	3.9
1961	3.7
Estimate ca.1990	3.38

** Excludes 3% of total population living in Institutions (eg. resident staff and permanent inmates in hospitals, colleges and boarding schools, religious establishments, jails etc.)

Facts and Assumptions

1. Trends 1941 to 1961.

2. The increasing proportion of the younger age groups who are married.

3. The increasing proportion of the total population who are young single people.

4. The increasing proportion of old people.

5. The increasing proportion of non-family households.

6. The increasing affluence of society enabling both young and old to maintain separate households.

7. The trend to "undoubling" of families formerly sharing the same dwelling.

8. The decreasing size of the larger families living at home due to earlier marriage and economic independence of children.

Number 1 to 6 explain the increases in the proportions of one and two person households in the table above and numbers 6 and 7 the decreases in the larger households. The forecast decrease in the proportion of the three-person households is a statistical result of the one and two person households increasing their proportions more than the four and over are expected to decrease.

TABLE B

APARTMENT TYPES AND POPULATION 1961 - ca.1990
METROPOLITAN TORONTO PLANNING AREA.

	Bachelor		1-Bedroom		2-Bedroom		3+ Bedroom		Total	
	Units	Pop.	Units	Pop.	Units	Pop.	Units	Pop.	Units	Pop.
1961	14,300	19,600	48,500	98,000	27,800	78,400	2,500	7,700	93,100	203,700
1961-ca.1990	38,300	43,600	140,500	227,500	117,300	324,000	18,900	94,200	315,000	689,300
ca.1990	52,600	63,200	189,000	325,500	145,100	402,400	21,400	101,900	408,100	893,000

lersons Per Unit 1958-1987

1958	1.39	2.03	2.86	3.13	2.16
1961	1.37	2.02	2.82	3.08	2.19
ca.1990	1.20	1.72	2.77	4.76	2.19

Percent Distribution
Apartments 1958-ca.1990

1958	16.0	53.7	28.3	1.6	100.0
1961	15.3	52.2	29.9	2.6	100.0
ca.1990	12.9	46.3	35.6	5.2	100.0

Note: 1958 and 1961 statistics from "Apartment Survey 1961" Metropolitan Toronto Planning Board

TABLE C

TOTAL DWELLING UNITS, APARTMENTS AND POPULATION: 1961 and ca.1990

	Total D.U.'s	%	Apts.	%	Other D.U.'s	%
1961						
D.U.'s	470,000	(100)	93,100	(19.8)	376,900	(80.2)
Pop.	1,724,500*	(100)	203,700	(11.8)	1,520,800	(88.2)
P.p.u.	3.67		2.19		4.58	
ca.1990						
D.U.'s	1,050,000	(100)	408,100	(38.9)	641,900	(61.1)
Pop.	3,550,000*	(100)	893,000	(25.1)	2,657,000	(74.9)
P.p.u.	3.38		2.19		4.14	

P.p.u. = Persons per unit

* Excludes 3% of Metro population living in Institutions.

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